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SYLLOGE

FUNGORUM

OMNIUM HUCUSQUE COGNITORUM

DIGESSIT

P. A. SACCARDO

VOL. XIV

SUPPLEMENTUM UNIVERSALE

Pars IV.

AUCTORIBUS

P. A. SACCARDO ET P. SYDOW

ADJECTUS EST INDEX TOTIUS OPERIS

Fol. 83 — Pretium it. lib. *(francs)* 83.

PATAVII
Die XX Augusti MDCCCIC.
SUMPTIBUS P. A. SACCARDO
TYPIS SEMINARII

1899

85 C

SPECIES FUNGORUM IN HOC VOLUMINE PRIMITUS DESCRIPTÆ

Acanthostigma crastophilum Sacc. et F. p. 1137.
Æcidium bicolor Sacc. p. 385.
Aschersonia Goldiana Sacc. et E. p. 990.
Cylindrosporium Tabebujæ Sacc. p. 1034.
Cytosporina brunnea Sacc. p. 988.
Diaporthe (Chorostate) Bonafidii Sacc. p. 545.
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Eriospora ambiens Sacc. p. 987.
Glœosporium ochrostictum Sacc. p. 1007.
Leptostroma aquilinum C. Mass. p. 995.
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Micropera fusco-mellea Sacc. p. 987.
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Phialea violascens Rehm, p. 769.
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Phyllachora tonkinensis Sacc. p. 669.
Phyllachora topographica Sacc. p. 669.
Phyllosticta chlorospila Sacc. et F. p. 1137.
Phyllosticta perforans Sacc. et Matt. p. 849.
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Sirodesmium ramosum Sacc. p. 1137.
Sphæronæma Balansæ Sacc. p. 900.
Stigmatea Ulei Br. et Sacc. p. 585.
Trichopeziza hamata Sacc. p. 1137.
Vermicularia oligochæta Sacc. p. 906.

SUMMA FUNGORUM HUCUSQUE COGNITORUM.

Species in voluminibus I-XI descriptæ	42,383
Species in hoc volumine XIV descriptæ	4,921
Species fungorum ad diem cognitæ	47,304

PRÆMONITUS

Quadriennium jam elapsum est, ex quo prodiit *Sylloges* supplementum tertium seu operis totius volumen XI *) et interea tam magna mycetum novorum copia ex toto orbe collecta est ut editio novi supplementi opportuna, ne dicamus necessaria, visa sit. Volumen præsens amplectitur diagnoses mycetum ab initio anni MDCCCXCV ad finem ann. MDCCCXCVII editorum, quibus non multi ex editis anno MDCCCXCVIII adjecti sunt **). In hoc volumine præterea inveniuntur diagnoses XXIX mycetum omnino novorum, quorum catalogus in præcedente pagina exhibitus est.

Quibus rationibus utile visum sit volumini præmittere *Tabulas comparativas generum fungorum omnium* et in calcem addere conspectum *Myceliorum sterilium* (hucusque in opere nostro prætermissorum), suis locis clare videbitur.

Patavii et Berolini, X Junii MDCCCIC.

P. A. Saccardo
P. Sydow

*) Vol. XII continet Sydowii Indicem universalem et locupletissimum generum, specierum, subspecierum, varietatum hospitumque in toto opere expositorum, Berolini 1897; vol. XIII sistit Ejusdem Indicem universalem et locupletissimum nominum plantarum hospitum specierumque omnium fungorum has incolentium, quæ usque ad finem anni 1897 innotuerunt, Berolini 1898.

**) In « Hedwigiæ » voluminibus XXXV-XXXVII (1896-1898), curantibus P. A. Saccardo, G. Lindau et P. Sydow, prodierunt *Elenchi fungorum novorum annis 1895-1897 editorum*, tamen nulla diagnosi præditi.

Mycologi v. botanici qui quocumque modo «Syllogi» profuerunt *)

(Continuatio. Cfr. vol. VIII, p. IX, X, p. V, XI, p. VII).

ADERHOLD R. (*Proskau*)
BAUVERIE J. (*Lyon*)
BERLESE AMEDEO (*Napoli*)
BERNATSKY J. (*Budapest*)
BLÓNSKI F. (*Warszava*)
BOULANGER EM. (*Paris*)
BOYER G. (*Montpellier*)
BUBÁK F. (*Hohenstadt*)
BUCHOLTZ F. (*Moskwa*)
BURNAP C. E. (*Cambridge Mass.*)
CASAGRANDI O. (*Catania*)
CROSSLAND C. (*Halifax*)
DECKENBACH C. (*St. Petersburg*)
DELACROIX G. (*Paris*)
DE LA MARLIÉRE G. (*Paris*)
DESTRÉE CAROLINE (*La Haye*)
DURAND E. I. (*Ithaca*)
EICHLER J. (*Stuttgart*)
ELIASSON A. G. (*Upsala*)
HARPER R. A. (*Bonn*)
JAC Y E. (*Bern*)
KIRCHNER O. (*Hohenheim*)
KLEBHAN H. (*Hamburg*)
LLOYD C. G. (*Cincinnati*)
LOPRIORE G. (*Catania*)
MAIRE R. (*Dijon*)
MONTEMARTINI L. (*Pavia*)
MOTTARELE G. (*Portici*)
NORTON J. B. S. (*Manhattan*)
NUTTALL L. W. (*Nuttallburg*)
POLLACCI G. (*Pavia*)
POPTA C. M. L. (*Zeist, Olanda*)
POTEBNIA A. A. (*Kharcoff*)
PRILLIEUX ED. (*Paris*)
RACIBORSKI M. (*Java*)
RICHARDS H. M. (*New York*)
RICK J. (*Feldkirck*)
SELBY A. D. (*Wooster, Ohio*)
SHELDON E. P. (*Minneapolis*)
SMITH E. F. (*Washington*)
SNYDER L. (*Lafayette*)
SOPPITT H. V. (*Halifax*)
SPESCHNEW N. (*Tiflis*)
STONEMAN BERTHA (*Ithaca*)
TAKAHASHI Y. (*Tokio*)
TASSI FLAM. (*Siena*)
TRANZSCHEL W. (*Nowgorod*)
TROTTER ALEX. (*Padova*)
UNDERWOOD L. M. (*New York*)
VESTERGREEN T. (*Upsala*)
WEBSTER H. (*Cambridge Mass.*)
WILDEMAN E. (DE) (*Bruxelles*)
ZOPF W. (*Halle*)
ZUKAL H. (*Wien*).

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*) Plurimi ex citatis botanicis opera v. opuscula mycologica benevole miserunt, quibus, æque ac prius laudatis, editor devinctissimus gratias agit.

ADDENDA ET EMENDANDA

IN TABULIS COMPARATIVIS GENERUM FUNGORUM.

Pag. 8, ad n. 127 pone: *Russulina* Schröt.
» 9, » 167 » : *Marasmiopsis* Henn.
» 19, » 296 loco *Winteriæ* pone *Winterina* Sacc. em. 1891
» 19, » 298 » *Winterinæ* pone *Winteria* Rehm, 1881.
» 23. Hypocr., ad n. 27 pone: [*Chiajæa* Sacc. 1896].
» 26, Hyster., » 33 aufer *Actidium* et pone ad n. 104.
» 26, » » 102 pone: *Delpinoella* Sacc
» 27, » » 100 aufer *Glyphium* et pone sub n. 90 *(Lophium)*.
» 31, ad n. 198 aufer *Dermatella* et pone ad n. 199.
» » » 203 » *Belonidium* » » 204.
» » » 223 » *Belonium* » » 224.
» » » 243 » *Velutaria* » » 239.
» 32, Ascob., sub n. 6 adde *Boudierella* Sacc. 1895.
» » Bulg., ad n. 53 pone *Agyriopsis* Sacc. et Syd. 1899.
» 33, Phac. n. 96 aufer *Rhymbocarpus* et pone ad n. 25, Patell.
» 40, sub n. 74 pone [*Epithyrium* Sacc. 1892].

Pag. 1037, *Oospora Nicotianæ* Pezz. et Sacc. dicatur **Oospora Nicotianæ** Splend. et Sacc. et citetur: D.r A. SPLENDORE, Sopra una nuova specie di *Oospora,* denominata *O. Nicotianæ,* quale causa della «fioritura» nei sigari forti etc. Roma, 1899, cum tabula optima.

1160, *Sclerotium umbilicatum* Desm. (1845) dicatur **Scl. Desmazierii** Sacc. et Syd., extante homonymo Laschii (1844), pag. 1145.

TABULÆ COMPARATIVÆ

GENÉRUM FUNGORUM OMNIUM

AUCTORE P. A. SACCARDO

Tabulæ hæ, etsi adhuc imperfectæ et ulterius emendandæ, tamen ex iis, quæ sequuntur, satis utiles videntur.

I. Clare ex iis demonstratur, quam magna sit differentia fungorum serierum in characteribus sporarum. Demptis paucis cohortibus, hæc habetur lex: quanto majores et crassiores sunt mycetes, tanto eorum sporæ sunt simpliciores et minores. Hymenomycetæ, Gasteromycetæ, Ascomycetæ majores etc. sunt potissimum *amerosporæ;* Pyrenomycetæ, Hysteriaceæ, Patellariaceæ, Sphæropsidaceæ, Hyphomycetæ etc. sunt plerumque *heterosporæ.*

II. Permultis in casibus generum analogia sporologica et, ut ita dicam, parallelismus clare elucescit *). Quo factum est, ut lacunæ in generum seriebus mox manifesta fiant et, cum lacunæ sint numeratæ, generum in posterum inveniendorum locus in systemate numero lacunarum exacte indicari possit. Quod si locus sit jam occupatus, licet genus novum satis discrepet, id indicabimus numero lacunæ occupatæ, addita lineola supra v. infra, ut affinitas magis pateat. Exempla: si aliquando invenietur Agaricacea quædam characteribus *Amanitæ* sed ochrospora, hæc lacunam vacuam n.° 3 occupabit; si

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*) SACCARDO. *I prevedibili funghi futuri secondo la legge d'analogia.* Venezia 1896 (Atti del r. Istituto Veneto).

Armillaria rhodospora invenietur, hæc n.° 22 distinguetur. Si vero aliquando reperietur genus novum inter *Volvariam* et *Chamæotam* medium, id indicabimus n.° 6 vel 10, prout sit uni v. alteri affinius.

Numeri in quaque familia ab *uno* incipiunt. Hinc familia ubique nobis citanda est. E. g. *Agaricaceæ* n.° 22, *Polyporaceæ* n.° 10, *Perisporiaceæ* n.° 83, etc. In familiis hucusque isosporis, ut *Nidulariaceæ, Lycoperdaceæ* etc., numeri e loco generum desumi possunt.

III. Tabulæ hæ insuper facilem viam aperiunt ad fungorum genericam determinationem. Exemplum: ubi nobis sit determinanda Agaricacea quædam melanospora anulata, cognitâ jam nobis *Armillariâ,* facili negotio comperiemus genus datum probabiliter esse *Strophariam, Armillariæ* parallelum.

IV. Denique, annus institutionis cujusque generis hic additus - in Sylloge sæpius omissus - scientiæ mycologicæ progredientem evolutionem, inprimis sporologicam, demonstrabit. Revera si hodie *Agaricum* a *Lepiota, Nolaneam* a *Galera, Puccinium* ab *Uromycete, Geoglossum* a *Microglosso, Pleospora* a *Leptosphæria, Phoma* a *Coniothyrio, Glœosporium* a *Marsonia, Gymnosporium* a *Coniosporio* et centena alia genera distinguimus, hoc characteribus sporologicis omnino innititur. Hinc monitum, ut ad notas sporologicas fungorum maxima cura nobis sit jugiter attendendum.

CONSPECTUS COHORTIUM ET FAMILIARUM *)

COHORTES:

I. Basidiomycetæ
II. Ascomycetæ
III. Phycomycetæ
IV. Myxomycetæ
V. Deuteromycetæ

I. Basidiomycetæ

BASIDIÆ

a. Holobasidiæ

Angiocarpæ
- Nidulariaceæ
- Sclerodermaceæ
- Lycoperdaceæ
- Hymenogastraceæ.

Hemiangiocarpæ
- Phallaceæ
- Agaricaceæ

Gymnocarpæ
- Polyporaceæ
- Hydnaceæ
- Clavariaceæ
- Thelephoraceæ

b. Protobasidiæ

Schizobasidiæ
- Dacryomycetaceæ
- Tremellaceæ

Phragmobasidiæ
- Auriculariaceæ
- Uredinaceæ

MIBASIDIÆ
- Ustilaginaceæ
- Tilletiaceæ

II. Ascomycetæ

A. ESASCÆ

a. Holoascæ

1. Pyrenoascæ [Pyrenomycetæ]
- Xylariaceæ
- Hypocreaceæ
- Dothideaceæ
- Valsaceæ
- Sphæriaceæ
- Coryneliaceæ
- Ceratostomaceæ
- Lophiostomaceæ
- Perisporiaceæ
- Microthyriaceæ
- Hemihysteriaceæ
- Hysteriaceæ
- ?Laboulbeniaceæ

2. Hymenoascæ

* Angiocarpæ [Tuberoideæ]
- Phymatosphæriaceæ
- Onygenaceæ
- Elaphomycetaceæ
- Trichocomaceæ
- Cenococcaceæ
- Tuberaceæ

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*) Divisiones systematis primariæ plerumque secundum cll. BREFELD vel SCHROETER.

** Hemiangiocarpæ [Discomycetæ]
- **Cyttariaceæ**
- **Helvellaceæ**
- **Pezizaceæ**
- **Ascobolaceæ**
- **Dermateaceæ**
- **Bulgariaceæ**
- **Stictidaceæ**
- **Phacidiaceæ**
- **Patellariaceæ**
- **Cordieritaceæ**
- **Caliciaceæ**
- **Arthoniaceæ**

*** Gymnocarpæ
- **Gymnoascaceæ**
- **Exoascaceæ**
- **Ascocorticiaceæ**

b. Protoascæ
- **Saccharomycetaceæ**
- **Endomycetaceæ**

B. Hemiascæ
- **Ascoideaceæ**
- **Protomycetaceæ**
- **Monascaceæ**

III. Phycomycetæ

A. Zygomycetæ

a. Sporangieæ — **Mucoraceæ**

b. Conidieæ — **Entomophthoraceæ**

B. Oomycetæ

a. Sporangieæ

* Hemisporangieæ
- **Chytridiaceæ**
- **Ancylistaceæ**

** Eusporangieæ
- **Monoblepharidaceæ**
- **Saprolegniaceæ**

b. Conidieæ
- **Cystopodaceæ**
- **Peronosporaceæ**

IV. Myxomycetæ

A. Plasmodiatæ

* Angicarpæ — **Myxomycetaceæ**

** Gymnocarpæ
- **Ceratiomyxaceæ**
- **Phytomyxaceæ**
- **Acrasiaceæ**
- **? Myxobacteriaceæ**

B. Aplasmodiatæ — **? Monadinaceæ**

V. Deuteromycetæ

seu Fungi secundarii v. inferiores.

* Angiocarpæ [Sphæropsidaceæ]
- **Sphærioidaceæ**
- **Nectrioidaceæ**
- **Leptostromaceæ**
- **Excipulaceæ**

** Hemiangiocarpæ — **Melanconiaceæ**

*** Gymnocarpæ [Hyphomycetæ]
- **Mucedinaceæ**
- **Dematiaceæ**
- **Stilbaceæ**
- **Tuberculariaceæ**

CONSPECTUS SECTIONUM SPOROLOGICARUM

I. **Amerosporæ,** sporis continuis, globosis, ovoideis v. oblongis v. breve cylindraceis quocumque colore.
- *a.* **Leucosporæ,** sporis u. s. albis v. albidis.
- *b.* **Rhodosporæ,** sporis u. s. roseis v. sordide roseis.
- *c.* **Ochrosporæ,** sporis u. s. ochraceis v. subferrugineis.
- *d.* **Melanosporæ,** sporis u. s. atro-purpureis v. nigricantibus.
- *e.* **Jonosporæ,** sporis u. s. violaceis.

} in *Basidiomycetis* et *Phycomycetis*.

- *f.* **Amaurosporæ,** sporis globosis v. subglobosis, violaceis v. violaceo-brunneis.
- *g.* **Lamprosporæ,** sporis globosis v. subglobosis, lætius coloratis, nec violaceis.

} in *Myxomycetis*.

- *h.* **Allantosporæ,** sporis cylindraceis, curvatis (allantoideis) hyalinis v. pallide coloratis,
- *i.* **Hyalosporæ,** sporis globosis, ovoideis v. oblongis, hyalinis.
- *j.* **Phæosporæ,** sporis globosis, ovoideis v. oblongis, brunneis.

II. **Didymosporæ,** sporis ovoideis v. oblongis, 1-septatis, quocumque colore.
- *a.* **Hyalodidymæ,** sporis iisdem, sed hyalinis.
- *b.* **Phæodidymæ,** sporis iisdem, sed brunneis.

III. **Phragmosporæ,** sporis oblongis, 2-pluri-septatis quocumque colore.
- *a.* **Hyalophragmiæ,** sporis iisdem, sed hyalinis.
- *b.* **Phæophragmiæ,** sporis iisdem, sed brunneis.

IV. **Dictyosporæ,** sporis ovoideis v. oblongis, reticulato-septatis, quocumque colore.
- *a.* **Hyalodictyæ,** sporis iisdem, sed hyalinis.
- *b.* **Phæodictyæ,** sporis iisdem, sed brunneis.

V. **Scolecosporæ,** sporis filiformibus v. vermicularibus, continuis v. septulatis, hyalinis v. pallide coloratis.

VI. **Helicosporæ,** sporis cylindraceis in spiram convolutis, continuis v. septulatis, hyalinis v. coloratis.

VII. **Staurosporæ,** sporis stellatis, h. e. radiato-lobatis, continuis v. septulatis, hyalinis v. coloratis.

} in *Ascomycetis* et *fungis inferioribus*, raro in *Basidiomycetis*.

	Amerosporæ
Basidiomycetæ *)	
1. Nidulariaceæ	Nidularia Bull. em. 1790 Cyathus Hall. 1768 Crucibulum Tul. '44 Dacryobolus Fr. '49 Sphærobolus Tode 1791
2. Lycoperdaceæ	
Podaxeæ	Gyrophragmium Mont. '43 Secotium Kunze '40 Polyplocium Berk. '43 Cycloderma Kl. '32 Mesophellia Berk. '60 Protoglossum Massee '91 Cauloglossum Grev. '32 Gymnoglossum Massee '91 Podaxon Fr. '32 Chænoderma Massee '90 Sphæriceps W. et C. '67.
Diplodermeæ	Tylostoma Pers. 1797 Queletia Fr. '71 Battarrea Pers. 1801 Husseya Berk. '47 Mitremyces Nees '16 Geaster Mich. 1729 Stella Massee '89 Diplocystis B. et C. '67 ?Diploderma Link. '16 Trichaster Czern. '45 Broomeia Berk. '44 Coilomyces B. et C. '53
Lycoperdeæ	Lanopila Fr. '48 Lycoperdon Tourn. 1700 Eriosphæra Reichardt '70 Catastoma Morg. '92 Bovista Dill. 1719, Pers. 1797 Calvatia Fr. '49
3. Sclerodermaceæ	Hippoperdon Mont. '42 Clavogaster Henn. '96 Scleroderma Pers. 1801 ?Castoreum C. et M. '87 Xylopodium Mont. '43

	Amerosporæ
Dubiæ	Arcolaria Forq. '86 Phellorina Berk. '43 Favillea Fr. '48 Polygaster Fr. '23 Polysaccum DC. '15 ?Testicularia Kl. '32 Arachnion Schw. '22 Scoleciocarpus Berk. '43 ?Paurocotylis Berk. '55 Ciliciocarpus Corda '36 Lycogalopsis Fisch. '86 Glischoderma Fuck. '69
4. Hymenogastraceæ	Hysterangium Vitt. '31 Octaviania Vitt. '31 Sclerogaster Hesse '91 Rhizopogon Fr. '18 Melanogaster Corda '57 Hymenogaster Vitt. '31 Hydnangium Wallr. '41 Gautieria Vitt. '31 Macowanites Kalchb. '76 Leucogaster Hesse '83 Phlyctospora Corda '42 ?Pompholyx Corda '41 ?Pachyderma Schulz. '77
5. Phallaceæ	
Phalleæ	Dictyophora Desv. 1809 Ithyphallus Fr. '23 Itajahya Möll. '95 Mutinus Fr. '49 Aporophallus Möll. '95 Kalchbrennera Berk. '70 Floccomutinus Henn. '95
Clathreæ	Simblum Kl. '31 Blumenavia Möll. '95 Clathrus Mich. 1729 Colus Cav. et S '35 Lysurus Fr. '23 Anthurus Kalchb. '80 Calathiscus Mont. '42 Aseroe La Bill. 1798 Protubera Möll. '95
Phallogastreæ	Pallogaster Morg. '92

*) Genera in *Sylloge* nondum accepta vel ut subgenera habita, hic inter parentheses rectas inscribuntur.

Genera iterata ob affinitates ancipites, inter parentheses curvas includuntur.

	Leucosporæ	Rhodosporæ	Ochrosporæ	Melanosporæ
6. Agaricaceæ				
A. Haplophyllæ				
a. Molles				
Agariceæ	Amanita Pers. 1797	Metraria C. et M. '91	3	4
	Amanitopsis Roze '76	Volvaria Fr. '21	Locellina Gill. '74, Sacc. (= Acetabularia B. nec Lam. Cyphellopus Fay '89)	Clarkeinda O. K. '91 (= Chitonia Fr. '74, ne M. S. '24)
	Lepiota Pers. 1797	Chamæota W. Sm. '70 (= Annularia Schulz. '68 nec Stern. '21)	Pholiotella Speg. '89	Agaricus L. 1757 em.
	Schulzeria Bres. '86	Pluteus Fr. '21	Pluteolus Fr. '74	Pilosace Fr. '51
	17	18	[Rozites Karst. '79]	20
	Armillaria Fr. '21	22	Pholiota Fr. '21	Stropharia Fr. '49
	[Armillariella Karst. '79]	26	27	28
	[Mucidula Pat. '87]	30	31	32
	Tricholoma Fr. '21	Entoloma Fr. '36	Hebeloma Fr. '21	Hypholoma Fr. '21
	[Melaleuca Pat. '87]	38	Inocybe Fr. '21	[Næmatoloma Karst. '7
	41	42	[Clypeus Britz. '81]	[Lacrimaria Pat. '87]
	Clitocybe Fr. '21	Clitopilus Fr. '21	Flammula Fr. '21	Panæolus Fr. '36
	[Laccaria B. et Br. '83]	50	51	[Anellaria Karst. '79]
	[Lepista (Fr.) Karst. '79]	54	[Ripartites Karst. '79]	56
	Collybia Fr. '21	Leptonia Fr. '21	Naucoria Fr. '21	Psilocybe Fr. '21
	(Marasmius Fr. trib. I)	62	63	64
	Mycena Pers. 1797	Nolanea Fr. '21	Galera Fr. 21	Psathyra Fr. '21
	Hiatula Fr. '51	70	71	Psathyrella Fr. '36
	Omphalia Pery 1801	Eccilia Fr. '21	Tubaria W. Sm. '70	Deconica W. Sm. '70
	Pleurotus Fr. '21	Claudopus W. Sm. '73	Crepidotus Fr. '21	80
	[Phyllotus Karst. '79 = Calathinus Quél. '86]	[Dochmiopus Pat. '87]	83	84
	Leucocoprinus Pat. '88	86	Bolbitius Fr. '38	Coprinus Pers. 1797
	89	90	91	[Oncopus Karst. '79]
	93	94	Cortinarius Pers. 1801 (sub Cortinaria)	[Psalliophora Karst. '79
	97	98	(Locellina Gill.)	Gomphidius Fr. '38
	101	102	103	Montagnites Fr. '38
Paxilleæ	Lyophyllum Karst. '81	106	Paxillus Fr. '36	108
	Lepista (Fr.) Karst. '79	110	[Tapinia Fr. '21]	112
	(Laccaria B. et Br. '83)	114	115	116
	Hygrophorus Fr. '38	118	119	120
Lactarieæ (Asterosporæ)	Lactarius Pers. 1797 (sub Lactaria)	122	123	124
	Russula Pers. 1796	126	127	128

	Leucosporæ	Rhodosporæ	Ochrosporæ	Melanosporæ
Cantharelleæ	Cantharellus Pers. 1797	130	131	132
	[Dyctiolus Quél. '88] (= Leptoglossum Karst. Jun. '79, nec Cooke Febr. '79)	134	135	136
	(Craterellus Fr.)	(Nevrophyllum Pat.)	139	140
	Trogia Fr. '38	142	143	144
	Arrhenia Fr. '49	146	147	148
	Rimbachia Pat. '91	150	151	152
	Nyctalis Fr. '25	154	155	156
	?Stylobates Fr. '38.	158	159	160
	Campanella P. Henn. '95	162	163	164
b. Tenaces Marasmieæ	Marasmius Fr. '38	Schinzinia Fay. '90	167	Anthracophyllum Ces. '79
	[Androsaceus Pat. '87]	170	171	172
	Heliomyces Lév. '44	174	175	176
	Lentinus Fr. '25	178	179	180
	[Hemicybe Karst. '79]	182	183	184
	(Lentodium Morg. '95)	186	187	188
	Panus Fr. '38	190	191	192
	[Panellus Karst. '79]	194	195	196
	[Scytinotus Karst. '79]	198	199	200
	Xerotus Fr. '28	202	203	204
Lenziteæ	Lenzites Fr. '38	206	207	208
	Tilotus Kalchbr. '81	210	211	212
	Hymenogramme M. et B. '44	214	215	216
	Lentodium Morg. '95	218	219	220
B. Schizophyllæ	Oudemansiella Speg. '82	222	223	224
	Pterophyllus Lév. '44	226	227	228
	Rhacophyllus Berk. '70	230	231	232
	Schizophyllum Fr. '21	234	235	236

	Leucosporæ	Ochrosporæ	Rhodosporæ
7. Polyporaceæ			
Boleteæ	Suillus (Mich.) Karst. '82	Boletus Dill. 1719	Tylopilus Karst. '82
	(= Gyroporus Quél. '86)	(= Euboletus)	
	4	Strobilomyces Berk. '30	6
	Boletinus Kalchbr. '73	8	9
	10	Campbellia C. M. '90	12
	Gyrodon Opat. '56	14	15
	16	Fistulina Bull. 1780	18
Polyporeæ	Polyporus Mich. 1729	Phæoporus Schröt. '88	21
	[Leucoporus Quél. '86]	[Pelloporus Quél. '86]	24
	[Melanopus Pat. '87]	Laccocephalum Mc. Alp. '94	27
	[Cerioporus Quél. '86]	29	30
	[Polypilus Karst. '81]	32	33
	(= Cladomeris Quél. '86)		
	Polystictus Fr. '51	35	36
	[Formitopsis Karst. '81]	38	39
	(= Placodes Quél. '86)		
	[Coriolus Quél. '86)	41	42
	(= Hansenia Karst. nec Turcz.)		
	[Bjerkandera Karst. '79]	44	45
	(= Leptoporus Quél. '86)		
	[Spongipellis Pat. '87]	47	48
	Fomes Fr. '51	Ganoderma Karst. '81	51
	Mucronoporus E. et Ev. '89	53	54
	[Onnia Karst. '89]	56	57
	[Inonotus Karst. '81]	[Inodermus Quél. '86]	60
	Poria Pers. 1801	Poria Pers. ex p.	63
	[Xylodon (Ehrenb.) Karst. '81	65	66
	? Henningsia Möll. '95	68	69
	Trametes Fr. '38	71	72
	[Antrodia Karst. '79]	74	75
	Sclerodepsis Cooke '90	77	78
	Hexagonia Fr. '38	80	81
	Dædalea Pers. 1801	83	84
	Myriadoporus Peck. '84	86	87
	Bresadolia Speg. '86	89	90
	Cyclomyces K. et Fr. '30	92	93
	Favolus Fr. '28	95	96
	Glæoporus Mont. '42	98	99
	Laschia Fr. '30	101	102
	(Campbellia C. M.)	104	105
	Merulius Hall. 1768	Serpula Pers. 1801	108
	(Protomerulius Möll. '95)	110	111
	Poroptyche Berk. '88	Mycodendron Massee '91	114
	Theleporus Fr. '48	116	117
	Porothelium Fr. '18	119	120
	Solenia Hoffm. 1795	122	123

	Leucosporæ	Ochrosporæ	Jonosporæ
8. Hydnaceæ	Hydnum L. 1763	Phæodon Schröt. '88	Amaurodon Schröt. '88
	[Tyrodon Karst. '81]	[Sarcodon Quél. '78]	6
	Pleurodon Quél. '78]	[Calodon Quél. '78	9
	[Leptodon Quél. '86]	11	12
	[Dryodon Quél. '78]	14	15
	[Climacodon Karst. '81	[Sclerodon Karst. '89]	18
	Hericium Pers. '97]	20	21
	Caldesiella Sacc. '77	23	24
	[Hydnochætella Sacc. '98 = Hydnochæte Peck '97 nec Bres.]		
	Hydnochæte Bres. '96	26	27
	Asterodon Pat. '94	29	30
	Irpex Fr. '28	32	33
	Sistotrema Pers. 1797	35	36
	Radulum Fr. '28	38	39
	Phlebia Fr. '21	41	42
	Lopharia Kalchbr. '82	44	45
	Thwaitesiella Massee '92	47	48
	Grandinia Fr. '38	50	51
	Grammothele C. et C. '67	53	54
	[Odontina Pat. '87]	Odontia (Pers.) Fr. '38	57
	(= Hydnum Karst.)	(= Acia Karst. '79)	
	Neckneiffia Sacc. '98	[Kneiffiella Karst. '89]	60
	(= Kneiffia Fr. 38 nec Spach '35 = Kneiffiella P. Henn. '98 nec Karst. '89)		
	[Hydnellum Karst. '96]	62	63
	Mucronella Fr. '74	65	66
	(Trichellodon Pers. '25)	68	69
	(Protohydnum Möll. '95)	71	72
9. Clavariaceæ	Sparassis Fr. '21	2	3
	?Acurtis Fr. '49	5	6
	Clavaria Vaill. 1727	Clavariella Karst. '81	9
	[Clavulina Schröt. '88]	11	12
	[Ramaria (Holms.) Quél. '86]	14	15
	Lachnocladium Lév. '49	17	18
	Pterula Fr. '25	20	21
	Hirsutella Pat. '92	23	24
	Typhula Fr. '18	26	27
	[Pistillina Quél. '87]	29	30
	Pistillaria Fr. '21	32	33
	[Ceratella Quél. '87]	35	36
	Physalacria Peck '82	Baumanniella Hennings '98	39
	Glœocephala Massee '92	41	42

	Leucosporæ	Ochrosporæ	Jonosporæ	Phragmosporæ
10. Thelephoraceæ				
Thelephoreæ	(Sparassis Fr.)	2	3	4
	Craterellus Fr. 38	[Nevrophyllum Pat. '87]	7	8
	[Craterella (Pers.) Karst. '81]	[Scyphophilus Karst. '82]	11	12
	Hypolyssus Pers. '25	14	15	16
	[Cristatella Pat. '87]	Thelephora Ehrb. 1789 (= Phylacteria (Pers.) Pat. '87)	19	20
	[Polyozus Karst. '81]	[Merisma (Pers.) Karst. '81]	23	24
	Cladoderris Pers. ap. Fr. '48	26	27	28
	Beccariella Ces. '79	30	31	32
	Stereum Pers. 1797	34	35	36
	[Cytidia Quél. '88] (= Lomatia Karst. '89)	38	39	40
	Corticium Fr. '38	42	43	44
	Prototremella Pat. '88 (= Pachysterigma Ols. '90)	46	47	48
	Aleurodiscus Rab. '74	50	51	52
	Bonia Pat. '92	54	55	56
	Hymenochæte Lév. '46	Hymenochæte Lév. ex p.	59	60
	[Hymenochætella Karst. '89]	62	63	64
	Asterostroma Massee '88	66	67	68
	Skepperia Berk. '57	70	71	72
	73	[Coniophorella Karst. '89]	75	76
	Peniophora Cooke '79	Coniophora DC. '15	79	80
	81	Aldridgea Massee '92	83	84
	Michenera B. et C. '67 [= Matula Mass. '88]	86	87	88
	Cyphella Fr. '22	Phæocarpus Pat. '83	91	92
	[Calyptella Quél. '88]	94	95	96
	Friesula Speg. '80	98	99	100
Hypochneæ	Hypochnus Fr. '29	Tomentella Pers. 1799	Hypochnella Schröt. '88 (= Hypochnopsis Karst. '89)	104
	?Septobasidium Pat. '92	106	107	108
	Aureobasidium V. B. '91	110	111	Heterobasidium Massee '88
	Urobasidium Gies. '92	114	115	116
	Matruchotia Boul. '94	118	119	120
Hemigastreæ	Hemigaster Juel. '95	122	123	124
?Hymenolicheneæ	Cora Fr. '38	126	127	128
	Rhipidonema Matt. '81	130	131	132
Exobasidieæ	Exobasidium Wor. '67	134	135	136
	(Microstroma Niessl. '65)	138	139	140

	Leucosporæ	Phragmosporæ
II. Tremellaceæ		
Auricularieæ	Auricularia Bull. 1795	2
	Hirneola Fr. '48	4
	[Auriculariella Sacc. '88]	6
	Mylittopsis Pat. '95	8
	Helicoglœa Pat. '92	10
	Platyglœa Schröt. '87	12
	Helicobasidium Pat. '85	14
	(= Stypinella Schröt. '87)	
	Saccoblastia Möll. '95	16
	Jola Möll. '95	18
Pilacreæ	Ochrosporæ: Pilacrella Schröt. '87 / Pilacre Fr. '25	20
Tremelleæ	Sirobasidium L. et Pat. '92	22
	Heterochæte Pat. '92	24
	Sebacina Tul. '71.	26
	Stypella Möll. '95	28
	Exidia Fr. '22	30
	Exidiopsis Ols. '88	32
	[Tulasnella Schröt. '88]	34
	Ulocolla Bref. '88	36
	Craterocolla Bref. '88	38
	Femsjonia Fr. '49	Guepinia Fr. '25
	Tremella Dill. 1741	42
	Nœmatelia Fr. '18	44
	Gyrocephalus Pers. '24	?Delortia Pat. '88
Hyaloriæ	Hyaloria Möll. '95	48
Dacryomyceteæ	Arrhytidia Berk. '49	Dacryomyces Nees '19
	Ceracea Crag. '85	52
	Ditiola Fr. '22	Dacryomitra Tul. '81
	Dacryopsis Massee '91	56
	?Collyria Fr. '49	58
Protopolyporeæ	Protomerulius Möll. '95	60
Protohydneæ	Tremellodon Pers. '21	62
	Protohydnum Möll. '95	64
Protoclavarieæ	Calocera Fr. '21	66
Dubiæ	Hormomyces Bon. '51	68
	Apyrenium Fr. '49	70
	Seismosarca Cooke '89	72

	Amerosporæ	Didymosporæ	Phragmosporæ	Dictyosporæ
12. Uredinaceæ				
Endophylleæ	Endophyllum Lév. '25	Pucciniosira Lag. '91	3	4
	5	Coleopuccinia Pat. '89	7	8
Schizosporeæ	Schizospora Pat. Diot. '95	Masseella Diet. '95	11	12
Melampsoreæ	13	14	Barclayella Diet. '91	16
	17	18	Chrysomyxa Ung. '40	20
	Cronartium Fr. '15	22	Trichopsora Lag. '91	24
	Dietelia P. Henn. '97	26	27	28
	Alveolaria Lag. '91	30	31	32
	Melampsora Cast. '43	34	Coleosporium Lév. '47	36
	Melampsorella Schröt. '74	38	Ochrospora Diet. '97	40
	Phacopsora Diet. '95	42	43	Pucciniastrum Otth '61
	45	46	47	Thecopsora Magn. '75
	Uredinopsis Magn. '92	50	51	Calyptospora Kühn '69
Pucciniеæ	Hemileia B. et Br. '69	54	Chrysopsora Lag. '91	56
	Schroeteriaster Magn. '96	58	59	60
	61	Gymnosporangium Hedw. 1805	63	64
	65	Uropyxis Schröt. '75	Rostrupia Lag. '89	68
	Uromyces Link '16	Puccinia Pers. 1797	Phragmidium Link '24	Triphragmium Link '24
	73	Leptinia Juel. '97	Xenodochus Schl. '26	Sphærophragmium Magn. '91
	77	Gymnoconia Lag. '95	79	80
	81	Diorchidium Kalchbr. '82	83	84
	85	Sphenospora Diet. '97	Phragmopyxis Diet. '97	Ravenelia Berk. '53
	89	Dasyspora B. et C. '54	91	92
Formæ infer.	Uredo Pers. 1795	94	95	96
	Cæoma Link. 1809	98	99	100
	Ædidium Pers. 1791	102	103	104
	Peridermium Link. '16	106	107	108
	Rœstelia Reb. 1804	110	111	112
	Ædidiolum Ung. '33	114	115	116
Genera dubia	? Milesia White '78 = Uredinopsis?	118	119	120
	Monosporidium Barcl. '88	122	123	124
	Sarcorhopalum Rab. '51	126	127	128
	Uleiella Schröt. '94	130	131	132
	Ædidiconium Vuill. '92	134	135	136
	Pericladium Pass. '75	138	139	140
	Chaconia Juel '97	142	143	144

	Amerosporæ	Didymosporæ	Dictyosporæ
13. Ustilaginaceæ			
Ustilagineæ	Ustilago Pers. 1801	Schizonella Schröt. '77	Pœcilosporium Dict. '97
	Sphacelotheca De B. '84	5	6
	Cintractia Cornu '83	8	Sorosporium Rud. '29
	Anthracoidea Bref. '95	11	Tolyposporium Wor. '82
	13	Schröteria Wint. '80	Thecaphora Fing. '35
Tilletieæ	Neovossia Thüm., Körn. '79	17	Tuburcinia Fr. '29
	Tilletia Tul. '47	20	Urocystis Rab. '56
	Sirentyloma Henn. '95	23	24
	Entyloma DB. '74	26	Doassansia Coru. '83
	Melanotænium De B. '74	29	Burrillia Setch. '92
	31	32	Cornuella Setch. '92
	Rhamphospora Cunn. '89	35	36
Gen. dubia	Schinzia Naeg. '42	38	Cerebella Ces. '51 spp.
	(= Entorrhiza Web. '84)		(C. Andropogonis Ces. spec. Mattirolo est Hyphomyceta)
	Tuberculina Sacc. '80	41	42
	Graphiola Poit. '24	44	45
	Ustilaginoidea Bref. '95	47	48
	Pæpalopsis Kühn '82	50	51
	Testicularia Kl. '32	53	54
	Elæomyces Kirchn. '87	56	57
	Meria Vuill. '96	59	60
	Hypostomum Vuill. '96	62	63
	Didymochlamis P. Henn. '96	65	66

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
Ascomycetæ					
14. Perisporiaceæ	1	Podosphæra Lév. '23	3	4	5
Erysipheæ	11	Sphærotheca Lév. '51	13	14	15
	21	Phyllactinia Lév. '51	23	24	25
	31	Uncinula Lév. '51	33	34	35
	41	Pleochæta S. et S. '81	43	44	45
	51	Microsphæra Lév. '51	53	54	55
	61	Erysiphe Hedw. 1805	63	64	65
	71	Erysiphella Peck '74	73	74	75
Eurotieæ	81	Eurotiopsis Cost. '97 nec Karst. '89	83	84	85
	91	Eurotium Link 1809	93	94	95
	101	Cryptothecium P. S. '97	103	104	105
	111	Aphanoascus Zuk. '90	113	114	115
	121	Kickxella Coem. '62	123	124	125
	131	Myriococcum Fr. '23	133	134	135
	141	Pisomyxa Corda '37	143	144	145
	151	? Cystotheca B. et C. '62	153	154	155
	161	Penicillium (Link 1809) Bref. (Microascus Zuk.)	Penicilliopsis Solms Laub. '86	164	165
	171	172	Emericella Berk. '57 (= Inzengæa Borzì)	174	175
Perisporieæ	181	182	183	184	Testudina Bizz. '85
	191	192	Thielavia Zopf. '76	194	Argynna Morg. '95
	201	202	203	204	Zopfia Rab. '74
	211	212	Magnusia Sacc. '78	214	Zopfiella Wint. '87
	221	Samarospora Rostr. '93	Chætotheca Zuk. '90	224	Richonia Boud. '85
	231	Anixia Fr. '19	Cephalotheca Fuck. '69	234	Marchaliella Wint. '91
	241	242	Orbicula Cooke '72	244	245
	251	252	Chætomidium Zopf '81	254	Lasiobotrys Kunze '23
	261	Apiosporium Kunze '17	Ascotricha Rab. 1838	264	Parodiella Speg. '80
	271	Meliolopsis Sacc. '82	273	Dimerosporium Fuck. '69	Dimerosporium Fuck. p. p.
	281	282	283	284	285
Capnodieæ	291	292	293	294	295
	301	? Capnodiella Sacc. subg. '82	303	304	305
	311	312	313	314	315

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
6	7	8	9	10
16	17	18	19	20
26	27	28	29	30
36	37	38	39	40
46	47	48	49	50
56	57	58	59	60
66	67	68	69	70
76	77	78	79	80
86	87	88	89	90
96	97	98	99	Globulina Speg. '89
106	107	108	109	110
116	117	118	119	120
126	127	128	129	130
136	137	Saccardia Cooke '78	139	Hyaloderma Speg. '89
146	147	148	149	150
156	157	158	159	160
166	167	168	169	170
176	177	178	179	180
186	187	188	189	190
196	197	198	199	200
206	Perisporium Fr. '32	208	209	Cleistotheca Zuk. '93
216	217	218	219	220
226	227	228	229	230
236	237	238	Ceratocarpia Roll. '96	240
246	247	248	249	250
256	257	258	259	260
266	267	268	269	270
Zukalina Sacc. '91	Meliola Fr. '28	278	Pleomeliola Sacc. '82	Pseudomeliola Speg. '90
286	Schenckiella Honn. '93	288	289	290
Limacinia Neg. '96	Limacinia Neg. p. p.	298	299	300
Capnodaria Sacc. subg. '82	307	308	Capnodium Mont. '48	310
Scorias Fr. '25	317	318	319	320

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
15. Sphæriaceæ					
Sphærelleæ	1	Læstadia Auersw. '69	3	Sphærella C. et D. '63	Phæosphærella Karst. '85
	11	12	13	[Ascospora Fr. '49 Wint.]	15
	21	22	23	Mycosphærella Johns. '84	25
	Massalongiella Speg. 80'	Phomatospora Sacc. '74	33	34	35
	41	42	Müllerella Hepp '62	Epicymatia Fuck. '69	Tichotecium Flot. '50
	51	Stigmatula Sacc. subg. '82	53	Stigmatea Fr. '49	Sorothelia Körb. '65
	61	62	63	Venturia C. D. '63	65
	71	72	73	[Coleroa Fr. '49]	75
Pleosporeæ	81	Physalospora Niessl. '76	Anthostomella Sacc.	Didymella Sacc. '78	Didymosphæria Fuck. '69
	91	92	93	94	95
	101	Ditopella De Not. '63	Astrocystis B. Br. '70	104	105
	111	Urospora Fabr. '80	113	114	115
	121	? Polytrichia Sacc. '82	123	124	Protoventuria B.S. '8
	131	132	133	134	Gibellina Pass. '86
	141	142	143	144	145
	151	152	153	154	155
	161	162	163	164	165
Massarieæ	Enchnoa Fr. '49	172	173	Massarinula G. Laml. '94	Massariella Speg. '8 (=Phorcis Niessl, 76?
	181	182	183	184	(Cfr. Massariovals Sacc.)
Clypeosphæ-rieæ	191	Trabutia S. et R. '81	(Anthostomella Sacc. p. p.).	Hypospilina Sacc. subg. '83	Microthelia Körb. '5
	201	Geminispora Pat.' 92	203	Apiospora Sacc. '75	205
Sphærieæ	211	212	Haplosporium Mont. '43	214	215
	221	Camptosphæria Fuck. '69	Bombardia Fr. '49	224	225
	231	232	Tassiella Sacc. subg. '82	Bertia De Not. '44	235
	241	242	243	Melchioria P. S. '97	245
	251	Wallrothiella Sacc. '82	Rosellinia De Not. '47	Melanopsamma Niessl. '76	Amphisphæria C. D. '63
	261	262	263	Pteridiospora P. S. '97	265
	271	Zignoina Sacc. subg. '82	Pleosporopsis Oerst. '65	? Winterella Berl. '92	Gaillardiella Pat. '9
	281	282	283	284	285
	291	292	293	294	295
	301	Trichosphæria Fuck. '69	Coniochæta Sacc. '82	Eriosphæria Sacc. '75	305

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
Sphærulina Sacc. '78	Leptosphærella Sacc. subg. '82	Pleosphærulina Pass. '91	9	10
16	17	18	19	20
26	27	28	29	30
36	37	38	39	40
46	47	48	49	50
56	57	58	59	60
66	67	68	69	70
76	77	78	79	80
Metasphæria Sacc. '82	Leptosphæria D. C. '63	Catharinia Sacc. '83	Pleospora Rab. '57	Dilophia Sacc. '82
Charrinia V. et R. '94	Leptosphæriopsis Berl. '92	98	Clathrospora Rab. '52	Ophiobolus Riess p. p.
106	Cladosphæria Nits. '71	Capronia Sacc. '82	Caproniella Sacc. '96	110
116	Heptameria Rehm '78	118	Delacourea Fabr. '80	120
Chætopyrena Sacc. subg. '82	Pocosphæria Sacc. '82	128	Pyrenophora Fr. '49	Ophiochæta Sacc. p. p.
136	Chitonospora B. R. S. '91	138	Montagnula Berl. '96	140
146	Passeriniella Berl. '91	148	149	150
156	Rebentischia Karst. '73	158	159	160
Ceriosporella Berl. '91	Ceriospora Niessl '76	168	169	170
Massarina Sacc. '82	Massaria De Not. '44	178	Pleomassaria Speg. '80	Ophiomassaria Jacz. '94
Saccardiella Speg. '80	187	Julella Fabr. '81	Karstenula Speg. '80	Therrya Sacc. '82
Hypospila Fr. '49	Clypeosphæria Fuck. '69	Peltosphæria Berl. 88	Phæopeltosphæria Berl. '92	200
206	207	208	Isothea Fr. '49	Linospora Fuck. '69
216	217	218	219	220
Bombardiastrum Pat. '93	227	228	229	230
Bortiella Sacc. subg. '82	Stuartella Fabr. '80	238	Crotonocarpia Fuck. '69	Acerbia Sacc. subg. '95.
246	247	248	249	250
Zignoella Sacc. '82	Melanomma Nits. Fuck. '69	Teichosporella Sacc. '82	Teichospora Fuck. '69	260
266	267	268	269	270
Trematostoma Sacc. subg. '83	Trematosphæria Fuck. '69	278	Strickeria Sacc. subg. '82	280
Melomastia Nits. '69	Caryospora De Not. '55	288	289	290
Winteria Rehm '81	Ohleria Fuck. '69	Winterina Sacc. '91	299	Leptosporella P. S. '97
Acanthostigma De Not. '63	Chætosphæria Tul. '63	308	Pleosphæria Speg. '82	310

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
Sphærieæ (seq.)	311	Trichosphærella B. R. S. '91	Helminthosphæria Fuck. '69	314	315
	321	Scortechinia Sacc. '85	323	324	Neopeckia Sacc. '8
	331	332	333	334	335
	341	342	343	344	345
	351	352	Chætomium Kunze '17	354	355
	361	362	Bommerella March. '85	364	365
Sordarieæ	371	372	Sordaria C. DN. '63	374	Delitschia Auersw. '6
	381	382	Hypocopra Fuck. '69	384	385
	391	392	Coprolepa Fuck. 69	394	395
	401	402	Philocopra Speg. '80	404	405
Cucurbitarieæ	Bizzozeria S. B. '85	412	413	Lizonia C. D. '63	415
	Cœlosphæria Sacc. '73	422	423	Pseudolizonia Pir. '89	425
	Nitschkea Fuck. '69	432	Tympanopsis Starb. '94	Thaxteria Sacc. '91	435
	Fracchiæa Sacc. 73	Botryosphæria C. DN. '63	Cucurbitula Fuck. '69	Otthiella Sacc. subg. '82	Otthia Nits. '69
	451	Gibellia Sacc. '85	453	Gibbera Fr. '49	455
16. Ceratostomaceæ	Pleurostoma Tul. '63	Ceratostomella Sacc. '78	Ceratostoma Fr. '49	Lentomita Niessl '76	Rhynchostoma Kar '73
	11	12	Microascus Zuk. '85	14	Rhynchomeliola Speg '83
	21	Gnomoniella Sacc. '81	23	Gnomonia C. DN. '63	25
	31	32	33	34	35
	41	Mamiania DN. '63	43	Rehmiella Wint. '75	45
	51	52	53	54	55
	61	62	63	64	65
	71	72	73	74	75
	81	82	83	84	85
17. Xylariaceæ	1	2	Hypoxylon Bull. '91	4	5
	11	12	Kretzschmaria Fr. '49	14	15
	21	22	Ponzigia Sacc. '88	24	25
	31	32	Daldinia C. DN. '63	34	35
	41	42	Nummularia Tul. '63	44	45
	51	52	Ustulina Tul. '63	54	55
	61	62	Bolinia Nits. '67	64	Camarops Karst. '7
	71	72	Pyrenomyxa Morg. '95	74	75
	81	82	Camillea Fr. '49	84	85
	91	92	Poronia Willd. '87	94	95
	101	102	Xylaria Hill. '73	104	Xylobotryum Pat. '9

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
Hormosperma P. S. 1897	Chætomastia Sacc. subg. '82	318	319	320
Enchnosphæria Fuck. '69	327	Bœrlagella P. S. '97	329	330
Lasiosphæria C. D. '63	337	338	339	Leptospora Fuck. '69
Herpotrichia Fuck. '69	347	348	349	350
Sydowia Bres. '95	357	358	359	360
366	367	368	369	370
376	Sporormia De Not. '49	378	Pleophragmia Fuck. '69	Bovilla Sacc. '82
386	387	388	389	390
396	Sporormiella Ellis '92	398	399	400
406	407	408	409	410
416	417	418	419	420
426	427	428	429	430
436	437	438	439	440
446	Gibberidea Fuck '69	Berlesiella Sacc. '88	Cucurbitaria Gray '21	450
456	457	458	459	460
Ceratosphæria Niessl '76	Rhynchosphæria Sacc. s. '82	Rhamphoria Niessl '76	9	Ophioceras Sacc. '82
16	17	18	19	20
Cryptoderis Auersw. '72	27	28	29	Ophiognomonia Sacc. '82
Hypospila Fr. e. p.	37	38	39	Linospora Fuck. e. p.
Gnomoniopsis Berl. '92	47	48	49	Ophiobolus Riess. '53
56	57	58	59	Ophiochæta Sacc. subg. '82
66	6	68	69	Entodesmium Riess '54 (= Pleiobolus B. R. S. '91)
76	77	78	79	Cylindrina Pat. '85
86	87	88	89	Bactrosphæria P. S. '97
6	7	8	9	Maurya Pat. '98
16	17	18	19	20
26	27	28	29	30
36	37	38	39	40
46	47	48	49	50
56	57	58	59	60
66	67	68	69	70
76	77	78	79	80
86	87	88	89	90
96	97	98	99	100
106	107	108	109	110

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
18. Valsaceæ	Calosphæria Tul. '63	2	3	Cacosphæria Speg. '87	5
	Coronophora Fuck. '69	12	13	14	15
	Quaternaria Tul. '63	22	23	24	25
	Valsa Fr. '49	Cryptosporella Sacc. '77	Fuckelia N. F. '69	Melanconis Tul. '63	Melanconiella Sacc. '82
	41	[Flageoletia Sacc. '96]	43	Hercospora Tul. '63	Massariovalsa Sacc. '82
	51	52	53	Diaporthe: Chorostate Nits. '70	55
	Eutypella Nits. '67	62	Fuckelia N. F. p. p.	Diaporthe: Chorostate Nits. '70	Valsaria DN. '63 (= Myrmæcium Nits. '69)
	Valsella Fuck. '69	72 [Cfr. Mamiania]	73	[Caudospora Starb. '89]	75
	Eutypa Tul. '63	Diaporthopsis Fabr. '82	Anthostoma Nits. '67	Diaporthe: Euporthe Nits. '70	Phæosperma Sacc. '82
	Endoxyla Fuck.' 71	92	93	94	95
	Cryptosphæria Grev. '22	102 [Cfr. Ditopella]	103	Diaporthe: Tetrastaga Nits. '70	105
	Cryptosphærella Sacc. '81	112	113	114	115
	Cryptovalsa C.DN. '63	122	123	124	125
	Diatrype Fr. '49	132	133	Myrmæcium (Nits.) Sacc. '82	135
	[Pachytrype P. et S. '98]	142	143	144	145
	Diatrypella C. DN. '63	152	153	Endothia Fr. '49	155
	Diatrypeopsis Speg. '83	162	163 [Cfr. Hypoxylon]	164	165
19. Dothideaceæ	1	Bagnisiella Speg. '81	3	Plowrightia Sacc. '83	Dothidea Fr. '18
	11	Kullhemia Karst. '77	13	14	15
	21	Mazzantia Mont. '66	Auerswaldia Sacc. '83	Dothidella Speg. '82	25
	31	Oxydothis P. S. '98	33	34	35
	41	Diachora J. Müll. '94	43	Munkiella Speg. '83	45
	51	Phyllachora Fuck. '69	53	Roussoëlla Sacc. '88	55
	61	Euryachora Fuck. '69	63	64	65
	71	Schirrhiella Speg. '83	73	Scirrhia Fuck. '69	75
	81	82	83	Rosenscheldia Speg. '83	85
	91	92	93	Monographus Fuck. '75	95
20. Hypocreaceæ	1	Hyponectria Sacc. '81	3	Charonectria Sacc. '80	Spegazzinula Sacc. '83
	11	12	13	14	Passerinula Sacc. '75
	21	Nectriella Sacc. '78	Sphæroderma Fuck. '75	Nectria Fr. '49	Letendræa Sacc. '80
	31	32	Vittadinula Sacc. sub. '83	Lasionectria Sacc. subg. '83	Neoskofitzia Schulz. '80
	41	[Chilostilbe P. et S. '98]	43	Sphærostilbe Tul. '65	45
	51	Chilonectria Sacc. '78	? Erythrocarpum Zuk. '85	Aponectria Sacc. '83	55
	61	Heteronectria P. S. '98	63	Metanectria Sacc. '78	65

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
Holstiella P. Henn. '95	7	8	9	10
16	17	18	19	20
26	27	28	29	30
Calospora Sacc. '83 (= Calosporella Schröt. '94	Pseudovalsa De Not. '63	Clethridium Sacc. subg. '82	Fenestella Tul. '63	Cryptospora Tul. '63
46	Aglaospora De Not. '44	48	49	Vialæa Sacc. '96
56	Titania Berl. '91	58	59	60
66	Thyridaria Sacc. '75	Thyridella Sacc. '91	69	70
76	77	78	79	80
86	Kalmusia Niessl '72	88	Thyridium Sacc. '77	Winterella Sacc. '83
96	97	98	99	100
106	107	108	109	110
116	117	118	119	120
126	127	128	129	130
Melanops N. F. 69	Melogramma Fr. '49	138	139	Sillia Karst. '73
146	147	148	149	150
156	157	158	159	160
166	167	168	169	170
Darwiniella Speg. '87	Homostegia Fuck. '69	8	9	10
16	17	18	19	20
26	27	28	29	30
36	37	38	39	40
Montagnella Sp. '82	47	Curreyella Sacc. '95 subg.	Curreya Sacc. '83	Ophiodothis Sacc. '83
56	57	58	59	Myriogenospora Atk. '94
66	Rhopographus Fuck. '69	68	69	70
76	77	78	79	80
86	87	88	89	90
96	97	98	99	100
Cesatiella Sacc. '81	7	8	9	Micronectria Speg. '86
16	17	18	19	20
Calonectria De Not. '67	Chiajea 27 Sacc. '96	Pleonectria Sacc. '77	29	Ophionectria Sacc. '78
Mesonectria Sacc. subg. '83	37	38	39	Ophiostilbe P. et S. '98
Stilbonectria Karst. 89	47	Megalonectria Speg. '82	49	50
Paranectria Sacc. '78	57	58	59	60
66	67	68	69	70

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
Hypocreaceæ	71	Eloutheromyces Fuck. '69	Melanospora Corda '37	Treleasia Speg. '96	75
	81	Thelocarpon Nyl. '54	Baculospora Zuk. '89	Cyanocephalium Zuk. '93	85
	91	92	93	94	95
	101	Byssonectria Karst. '79	Sphæroderma Fuck. '75	Hyphonectria Sacc. s.	105
	111	112	Scopinella Lev. '49	Solenostoma Sacc. subg. '83	115
	121	122	123	Homalocrea Sacc. subg. '83	125
	131	Podostroma Karst. '92	133	Podocrea Sacc. subg. '83	135
	141	Battarrina Sacc. subg. '83	Thuemenella P. et S. '98	Hypocrea Fr. '49	145
	151	152	153	Clintoniella Sacc. subg. '83	155
	161	Cavaræa Sacc. subg. '95	163	Hypocreopsis Karst. '73	165
	171	Peckiella Sacc. subg. '83	173	Hypomyces Fr. '49	175
	181	Selinia Karst. '76	183	Pyxidiophora Bref. et Tav. '91	185
	191	Polystigma DC. '15	193	Puiggariella Speg. '82	195
	201	Möllerіella Bres. '96	203	204	205
	211	Lisiella Cooke '87	213	Lisea Sacc. '78	215
	221	222	223	Valsonectria Speg. '82	225
	231	232	233	Corallomyces B. C. '54	235
	241	242	243	244	245
	251	252	253	254	255
	261	262	263	264	265
	271	272	273	274	275
21. Coryneliaceæ	1	2	Corynelia Ach. '18	4	5
22. Microthyriaceæ	1	Asterula Sacc. '82	Asteronia Sacc. '82	Asterina Lev. '45	Asterella Sacc. '82
	Piptostoma B. et Br. '73	Myiocopron Speg. '80	Vizella Sacc. '83	Microthyrium Desm. '41	Seynesia Sacc. '83
	21	22	23	Clypeolum speg. '82	25
	31	32	33	Pemphidium Monr. '40 p. p.	35
	41	42	43	Chætothyrium Speg. '88	45
	51	52	53	Trichothyrium Speg. '89	55
	61	62	63	Brofeldiella Speg. '89	65
	71	72	73	Polystomella Speg. '88	75
	81	82	83	(Puiggariella Speg.)	85

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
Lecithium Zuk. '98	77	78	Bivonella Sacc. subg. '83	Tubeufia P. S. '98
86	87	88	89	90
96	97	98	99	Barya Fuck. '69
106	107	108	109	Oomyces B. et Br. '51
116	117	118	119	Torrubiella Boud. '85
126	127	128	Uleomyces Henn. '95	130
Broomella Sacc. '83	137	138	139	Hypocrella Sacc. '78
Clibanites Karst. '71	147	148	149	150
156	157	158	159	Epichloë Fr. '49
166	167	168	169	Dussiella Pat. '88
Berkelella Sacc. subg. '83	177	178	179	180
186	187	88	189	190
196	197	198	199	Coscinaria E. et Ev. '86
206	207	208	209	210
Gibberella Sacc. '78	217	Pleogibberella Sacc. '86	219	220
226	227	Thyronectria Sacc. '77	Mattirolia Ber. et Br. '83	230
236	237	238	239	Claviceps Tul. '53
246	247	248	249	Balansia Speg. '86
256	257	258	259	Cordyceps Fr. '23
266	267	268	269	Racemella Ces. '61
276	277	278	279	[Cordylia Tul. '65]
6	Coryneliella Har. et K. '90	8	Tripospora Sacc. '86	10
Asteridium Sacc. '82	Asteridiella Mac Alp. '97	8	9	10
Micropeltis Mont. '42	Scutellum Speg. '82	Saccardinula Speg. '86	19	Scolecopeltis Speg '89
26	27	28	29	30
36	37	38	39	Pemphidium Mont. p. p.
46	47	48	49	50
Trichopeltis Speg. '89	57	58	59	60
66	67	68	69	70
Heterochlamis Pat. '95	77	78	79	80
86	87	88	89	90

	Allantosporæ	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phæodidymæ
23. Lophiostomaceæ	1	2	Lophiella Sacc. '78	Lophiosphæra Trev. '77	Schizostoma C. D. '63
	11	12	13	Lambottiella Sacc. subg. '83	Baccarinia Sacc. subg. '95
	21	22	23	24	25
	31	32	33	34	35
	41	42	43	44	45
24. Hemhysteriaceæ	1	2	3	4	Morenoëlla Speg. '86
	11	12	Cyclostomella Pat. '96	Clypeum Massee '96 (=Schneepia Speg. p. p. 4)	Schneepia Speg. '86 (=Parmularia Lév.?)
	21	22	23	24	Hysterostomella Speg. '89
25. Hysteriaceæ Hysterieæ	1	? Hypodermella Tub. '95	Lembosiella Sacc. '91	Aulographum Lib. '37	Lembosia Lév. '45
	11	Schizothyrium Desm. '49	13	Hariotia Karst '89	15
	21	Henriquesia Pass. et T. '89	Farlowiella Sacc. '83	Glonium Mühl. '13	25
	31	32	33	Actidium Fr. '15	35
	41	42	43	44	45
	51	52	53	Angelinia Fr. '49	Tryblidium Duf. '28
	61	62	63	64	65
	71	72	73	74	75
	81	82	83	84	Bulliardella Sacc. subg. '83
Synglonieæ	91	92	93	Synglonium P. et S. '98	95
	101	102	Erikssonia P. et S. '98	104	105
Ostropeæ	111	112	113	114	115
	121	122	123	124	125
Acrospermeæ	131	132	133	134	135

Hyalophragmiæ	Phæophragmiæ	Hyalodictyæ	Phæodictyæ	Scolecosporæ
Lophiotrema Sacc. '78	Lophiostoma C. D. '63	Lophidiopsis Berl. '90	Platystomum Trev. '77 (= Lophidium Sacc. '78	Lophionema Sacc. '83
Vivianella Sacc. '83 subg.	Rostella Fabr. '80	18	19	20
26	Brigantiella Sacc. '83 subg.	28	29	30
36	Navicella Fabr. '80	38	39	40
Lophiotricha Richon '85	47	48	49	50
6	7	8	9	10
16	17	18	19	20
26	27	28	29	30
6	7	8	9	Hypoderma DC. 1805
Hysteroglonium Rehm '96	17	Hysteropsis Rehm. '87	19	Lophodermium Chev. '26
Gloniella Sacc. '83	Hysterium Tode '90	Gloniopsis DN. '47	Hysterographium Corda '42	30
36	Rhytidhysterium Speg. '82	38	39	40
46	Ostreion Duby '61	48	49	50
56	Tryblidiella Sacc. '83	58	59	Sporomega Corda '42
Pseudographis Nyl. '55	Baggea Auersw. '66	68	69	Colpoma Wallr. '33
Dichæna Fr. '49	Hysteropatella Rehm '90	78	79	80
86	Mytilidion Duby '61	88	89	Lophium Fr. '15
96	97	98	99	[Glyphium Nits. et Lehm. '89]
106	107	108	109	110
116	117	118	119	Ostropa Fr. '49
126	127	128	129	Robergea Desm. '47
136	137	138	139	Acrospermum Tode 1790

	Didymosporæ		Didymosporæ
26. Laboulbeniaceæ Peyritschielleæ	Dimòrphomyces T. '93 Dimeromyces T. '96 Cantharomyces T. '90 Haplomyces T. '93 Eucantharomyces T. '94 Camptomyces T. '93 Euarthromyces T. '96 Peyritschiella T. '90 Dichomyces T. '93 Chitonomyces Peyr. '73 (= Heimatomyces Peyr.) Hydræomyces T. '96	Laboulbenieæ (seq.)	Idiomyces T. '93 Corethromyces T. '93 Rhadinomyces T. '93 Rhizomyces T. '96 Laboulbenia M. et Rob. '53 Teratomyces T. '93 Diplomyces T. '94 Rhacomyces T. '94 (= Acanthomyces Thart. olim nec Lib.) Chætomyces T. '93 Sphaleromyces T. '93 Compsomyces T. '93 Moschomyces T. '93
Laboulbenieæ	Amorphomyces T. '93 Helminthophana Peyr. '73 Stigmatomyces Karst. '69	Zodiomyceteæ	Zodiomyces T. '91 Ceratomyces T. '93

	Hyalosporæ	Phæosporæ	Didymosporæ	Phragmosporæ	Dictyosporæ
27. Phymatosphæriaceæ	Phillipsiella Cooke '78	2	Microphyma Speg. '89	Leptophyma Sacc. '89	Cookella Sacc. '78
	6	7	8	Harknessiella Sacc. '89	Ascomycetella Ell. '84
	11	12	13	Molleriella Wint. '86	Myriangium M. et B. '45
	16	17	18	Eurytheca De Seyn. '78	Phymatosphæria Pars. '75

	Hyalosporæ	Phæosporæ
28. Onygenaceæ	Onygena Pers. 1801	2
29. Elaphomycetaceæ	1	Elaphomyces Nees '20
30. Trichocomaceæ	1	Trichocoma Jungh. '38
31. Cenococcaceæ	1	Cenococcum Fr. '25
32. Tuberaceæ		
Tubereæ	Genea Vitt. '31 Pseudohydnotria Fisch. '97 5 Stephensia Tul. '45 9	2 Hydnotria B. et Br. '46 Cryptica Hesse '84 Pachyphlœus Tul. '44 Tuber Mich. 1729
Balsamieæ	Hydnocystis Tul. '44 Geopora Harkn. '85 Balsamia Vitt. '31	12 14 16
Terfezieæ (*plectascæ*)	Hydnobolites Tul. '43 Angiophœum Sacc. '97 (= Phæangium Pat. nec Sacc. '89) Picoa Vitt. '31 Leucangium Quél. '82 Tirmania Chat. '92 Terfezia Tul. '46 Delastria Tul. '43 Amylocarpus Curr. '57	18 20 22 24 26 Genabea Tul. '44 Chœromyces Vitt. '31 32

	Hyalosporæ	Phragmosporæ	Scolecosporæ
33. Cyttariaceæ	Cyttaria Lév. '46	2	3
34. Helvellaceæ			
Morchelleæ	Morchella Dill. 1719	2	3
	Mitrophora Lév. '46	5	6
	Gyromitra Fr. '49	8	9
	Helvella L. 1763	11	12
	Biverpa Fr. '49	14	15
	Verpa Sw. '15	17	18
	Underwoodia Peck. '90	20	21
	?Cidaris Fr. '49	23	24
Geoglosseæ	Mitrula Fr. '22	Leptoglossum Cooke '79	Cudonia Fr. '49
	Spragueola Massee '96	29	30
	Microglossum Sacc. '84	Geoglossum Pers. 1795	33
	Hemiglossum Pat. '90	35	36
	Neolecta Speg. '82	38	Spathularia Pers. 1797
	Cudoniella Sacc. '89	41	Vibrissea Fr. '22
	(Rœsleria T. et P. '77)	44	45

	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phragmosporæ	Scolecosporæ
35. Pezizaceæ	Sphærosoma Kl. '40	Sphærosoma Kl. e. p. '40	3	4	5
	Rhizina Fr. '15	7	8	9	10
	Psilopezia Berk. '47	12	13	14	15
	Acetabula (Fr.) Fuck. '69	17	18	19	20
	Geopyxis Pers. '22	22	23	24	25
	Peziza Dill. 1719 em.	Aleurina Sacc. '77	28	29	30
	Otidea (Pers. '22) Fuck. '69	32	33	34	35
	Otidella Sacc. '89	37	38	39	40
	Discina Fr. '49	42	43	44	45
	Detonia Sacc. '89	Phæopezia Sacc. '77 (= Curreyella Massee '95, nec. Sacc. '95 subg.)	48	49	50
	Galactinia Cooke '79	52	53	54	55
	Pyronema Carus '35	57	58	59	60
	Barlæina Sacc. '98 (= Barlaea Sacc. '89 nec. Reich. 77)	62	63	64	65
	Humaria Fr. '22 subg.	67	68	Massea Sacc. '89	70
	Berggrenia Cooke '79	72	73	74	75
	Ascodesmis v. Tieg. '76	77	78	79	80
	(Ascocalathium Eid. ap. Schröt. '93)	82	83	84	85
	Phillipsia Berk. '80	87	88	89	90
	Fleischhackia Rab. '78	92	93	94	95

	Hyalosporæ	Phæosporæ	Hyalodidymæ	Phragmosporæ	Scolecosporæ
. Pezizaceæ	Sarcoscypha Fr. '22 subg., Cooke '79	97	98	Anthopeziza Wettst. '85 sec. Massee	100
	Macropodia Fuck. '69 Cooke '79	102	103	104	105
	Pilocratera P. Henn. '91 (= Trichoscypha Cooke 79, nec Hook.)	107	108	109	110
	Plectania Fuck. '69	112	113	114	115
	Pseudoplectania Fuck '69	117	118	119	120
	Lachnea Fr. '22 (subg.) Gill. '79	122	123	124	125
	Sphærospora Sacc. '79	127	128	129	130
	Neottiella Cooke '79	132	133	134	135
	Pyronemella Sacc. '79	137	138	139	140
	Sclerotinia Fuck. '69	142	143	144	145
	Ciboria Fuck. '69	147	148	149	150
	Pitya Fuck. '69	152	153	154	155
	Helotium Fr. '49	157	Lanzia Sacc. '84	159	(Pocillum DN. '64)
	Calycella Sacc. '89	162	163	164	165
	Phialea Fr. '18 subg. Gill. '79	167	Bisporella Sacc. '84	169	170
	Pezizella Fuck. '69	172	Helotiella Sacc. '84	174	175
	Pseudohelotium Fuck. '69	177	178	179	180
	Mollisiella Phill. '87	182	183	184	185
	Cyathicula DN. '64	187	188	189	190
	Allophylaria Karst. '69	192	193	194	195
	Pezicula Tul. '65	197	Dermatella Karst. '70	199	200
	Chlorosplenium Fr. '49	202	Belonidium M. et D. '46	204	Gorgonyceps Karst. '71
	Coronellaria Karst. '71	207	208	209	210
	Mollisia Fr. '22 subg. Karst. '69	212	Niptera Fr. '49	214	215
	Pyrenopeziza Fuck. '69	217	218	219	220
	Tapesia Pers. '22 subg. Fuck. '69	222	Belonium Sacc. '84	224	225
	Desmazierella Lib. '29	227	228	229	230
	Pirottæa Sacc. '78	232	233	234	Mancinia Sacc. '89 (= Echinella Massee '95, nec Acharius)
	Lachnellula Karst. '84	237	238	239	240
	Lachnella Fr. '49	242	Velutaria Fuck. 69	Diplocarpa Massee '95	245
	Trichopeziza Fuck. '69	247	Solenopezia Sacc. '89	249	Erinella Sacc. '89
	Dasyscypha Fr. '22 subg., Fuck. '69	252	253	254	Erinopsis Sacc. '80
	Comesia Sacc. '84	257	258	259	260
	(Biatorella De Not. '46) (= Tromera Mass. '58)	262	263 (Scutula Tul. '44)	264	265

	Hyalosporæ	Phæosporæ	Didymosporæ	Phragmosporæ	Scolecosporæ
36. Ascobolaceæ	(Thelebolus Tode 1790)	2	3	4	5
	Cubonia Sacc. '69	Boudiera Cooke '77	8	9	10
	Ascophanus Boud. '51	Ascobolus Pers. 1791	13	14	15
	Lasiobolus Sacc. '84	Dasyobolus Sacc. '89	18	19	20
	Ryparobius Boud '51	22	23	24	25
	Streptotheca Vuill. '87	Saccobolus Boud. '69	28	29	30
	Zukalina O. K. '91 (= Gymnodiscus Zuk. '87, nec Less.)	32	33	34	35
	Gloeopeziza Zuk. '91	37	38	39	40
37. Dermateaceæ	Midotis Fr. '25	2	3	4	5
	Urnula Fr. '49	7	8	Crumenula D. N. '64	Godronia Moug. '45
	11	12	13	14	Crinula Fr. '21
	?Spadonia Fr. '29	17	18	19	Pocillum D. N. '64
	Dermatea Fr. '49	22	23	24	25
	Cenangium Fr. '22	Phæangium Sacc. '89 (= Schweinitzia Massee '95, nec Elliott)	Cenangella Sacc. '84	Scleroderris Fr. '22	30
	Encoelia Fr. '23	32	Phæangella Sacc. '89	Phæoderris Sacc. '89	35
	Tympanis Tod. 1790 em.	37	38	39	40
	41	Hymenobolus Mont. '45	(Cfr. Tryblidium)	(Cfr. Tryblidiella)	45
	Ameghiniella Speg '88	47	48	49	50
	Ephelina Sacc. '89	52	53	54	55
	Lequearia Fr. '49	57	58	59	60

	Hyalosporæ	Phæosporæ	Didymosporæ	Phragmosporæ	Scolecosporæ	Dictyosporæ
38. Bulgariaceæ	Leotia Hill. 1751	2	3	4	5	6
	Pulparia Karst. '71	Bulgaria Fr. '22	Sorokina Sacc. '92	10	11	Sarcomyces Massee '91
	Sarcosoma Casp.	14	15	16	17	18
	Ombrophila Fr. '49	Bulgariella Karst. '85	Paryphædria Zuck. '91	Coryne Tul. '65	Holwaya Sacc. '89	24
	Stamnaria Fuck. '69	26	Henningsiella Rehm. '95	28	29	30
	Orbilia Fr. '49	32	Calloria Fr. '49	34	35	36
	Ahlesia Fuck. '69	38	39	40	41	42
	Hæmatomyces B. et Br. '73	44	45	46	47	48
	Agyrium Fr. 22	50	51	52	53	Hematomyxa Sacc. '89

	Hyalosporæ	Phæosporæ	Didymosporæ	Phragmosporæ	Scolecosporæ	Dictyosporæ
9. Stictidaceæ	Propolis Fr. '49	2	Propolidium Sacc. '84	Eupropolis DN. '64	Stictis Pers. 1796	Platysticta C. et M. '89
	7	8	9	10	Lasiostictis Sacc. '85	12
	Propolina Sacc. '84	14	Coccopeziza Karst. '90	Cryptodiscus Corda '38	Schizoxylon Pers 1810	18
	Ocellaria Tul. '65	20	21	Phaneromyces Sp. it H. '89	Næmacyclus Fuck. '73	24
	25	26	27	28	Karstenia Fr. ap. Karst. '85	30
	Nævia Fr. '49	32	Diplonævia Sacc. '89	Phragmonævia Rehm '88	35	36
	Briardia Sacc. '85	38	39	40	41	Pleiostictis Rehm '82
	Xylographa Fr. '22	44	45	Xylogramma Wallr. '33	47	Mellittosporium Corda '38
	49	50	51	Odontotrema Nyl. '61	Lichenopsis Schw. '34	54
. Phacidiaceæ	Cryptomyces Grev. '26	Criella Sacc. '89	Marchalia Sacc. '89	4	Rhytisma Fr. '22	6
	Pseudorhytisma Juel '94	8	Cocconia Sacc. '89	10	Duplicaria Fuck. '69	12
	Phacidium Fr. '22	Stictophacidium Rehm '88	Keithia Sacc. '92	Sphæropezia Sacc, '84	Coccomyces De Not. '47	18
	Pseudopeziza Fuck. '69	20	Fabræa Sacc. '81	22	23	24
	Trochila Fr. '49	26	(Schizothyrium Desm.)	(Pseudographis Nyl.)	Clithris Fr. '22 (= Colpoma Wall. '33)	30
	Stegia Fr. '18	32	Rhagadolobium Henn. et Lind. '96	34	35	36
	Rhymbocarpus Zopf. '96	38	Abrothallus D. N. '46	40	41	42
	43	44	45	Metadothis Sacc. '89	47	Dothiora Fr. '49
	49	50	? Didymascus Sacc. '96	52	53	54
. Patellariaceæ	Patinella Sacc. '75	Lagerheima Sacc. '92	Karschia Körb. '65	Patellaria Wahl. '26	Bactrospora Mass. '52	6
	Patinellaria Karst. '84	8	Patellea Fr. '23	Durella Tul. '65	Lahmia Körb '61	12
	Actinoscypha Karst. '87	14	Iohansonia Sacc. '89	[Phragmospora Mass. '55]	17	18
	Heterosphæria Grev. '24	20	Ravenelula Speg. '82	Lecanidion Rab. '44	Scutularia Karst. '84	24
	25	26	Melaspilea Nyl. '57	Mycobilimbia Rehm '90	Mycobacidia Rehm '85	30
	Pseudophacidium Karst. '85	? Neuræcium Kunze ap. Fr. '49	Tryblidiopsis Karst. '71	Leciographa Mass. '54	Sphærepeziella Karst. '84	Blitrydium D.N. '64
	37	38	39	Rhytidopeziza Speg. '26	41	Tryblidaria Sacc. '89
	Starbæckia Rehm. '90	44	[Caldesia Trev. '69]	Pseudotryblidium Rehm '90	47	48
	Nesolechia Mass. '56	50	Scutula Tul. '44	52	53	54
	Biatorella D. N. '46 =Tromera Mass, '58	56	57	58	59	60

	Hyalosporæ	Phæosporæ	Didymosporæ	Phragmosporæ
42. Cordieritaceæ	Cordierites Mont. '40	2	?Acroscyphus Lév. '46	4
43. Caliciaceæ	Roesleria T. et P. '71 Coniocybe Ach. '16 9 13 17	Hypsotheca E. et E. '85 Sphinctrina Fr. '25 Caliciopsis Peck '80 Embolus Wallr. '31 Cyphelium Ach. '16	3 7 11 Calicium Pers. '94 Acolium Ach. '14	Stenocybe Nyl. '55 8 12 16 20
44. Arthoniaceæ	Phacopsis Tul. '52 5 (Agyrium Fr.)	Conida Mass. '56 Melaspileella Karst. '85 Lecideopsis Almq. '80	Celidium Tul. '52 Celidiopsis Mass. '56 Arthonia Ach. 1810	4 8 Arthothelium Mass. '6

	Hyalosporæ		Hyalosporæ
45. Gymnoascaceæ	Arachniotus Schöt. '93 Amauroascus Schröt. '93 Gymnoascus Baran. '72 Rostrupiella Sacc. '95 Myxotrichum Kunze '23 Bolacotricha B. et Br. '51 Ctenomyces Eid. '80	**49. Endomycetaceæ**	Podocapsa v. Tieg. '87 Eremascus Eid. '83 Endomyces Rees '70 Oleina v. Tieg. '87 Eremothecium Borzi '88 Bargellinia Borzì '88
46. Exoascaceæ	Magnusiella Sadeb. '95 Exoascus Fuck. '60 Taphrina Fr. '15	**50. Ascoidaceæ**	Ascoidea Bref. '91 Dipodascus Lag. '92
47. Ascocorticiaceæ	Ascocorticium Bref. '91	**51. Protomycetaceæ**	Protomyces Ung. '33 Endogone Link 1791
48. Saccharomycetaceæ	Saccharomyces Meyen '37 Monospora Metschnik '90?, nec Solier '45 (Monosporus) ?Schizosaccharomyces Lindn. '93 ?Eomyces Ludw. '93 ?Prototheca Krüg. '94	**52. Monascaceæ**	Thelebolus Tode 1790 Trichobolus Sacc. '92 Monascus Tiegh. '84 (= Physomyces Harz '90) Helicosporangium H. Karst. Papulospora Preuss. '51

	Amerosporæ
Phycomycetæ	
A. Zygomycetæ	
3. Mucoraceæ	
Mucoreæ	Mucor Mich. 1729 Circinella v. Tieg. '72 Pirella Bain. '82 Spinellus v. Tieg. '75 Rhizopus Ehrenb. '20 Phycomyces Kunze '23 Absidia v. Tieg. '76 Tieghemella Berl. et De Toni '88 Sporodinia Link '24 Thamnidium Link 1809 Chætostylum v. Tieg. '73 Helicostylum Corda 42 Dicranophora Schröt. '86 Pilaira v. Tieg. '75 Pilobolus Tode 1784
Mortierelleæ	Mortierella Coem. '63 Herpocladiella Schröt. '94 (= Herpocladium Schröt. '86 nec anterior Hepat.)
Choanophoreæ	Choanophora Cunn. '78
Chætocladieæ	Chætocladium Fres. '63
Piptocephalideæ	Piptocephalis DB. '65 Syncephalis v. Tieg. '73 Syncephalastrum Schröt. '86
Gen. dubia v. exclud.	Chordostylon Tode 1790 Thelactis Mart. '21 Didymocrater Mart. '21 Diamphora Mart. '21 Aërophyton Eschw. '23 Hemicyphe Corda '37 Crateromyces Corda '37 Caulogaster Corda '37 Endodromia Berk. '41 Sclerocystis B. Br. '70 Xenomyces Ces. '79 Acrocystis E. et H. '90 Hapalocystis Sorok. '75

	Amerosporæ
54. Entomophthoraceæ	Empusa Cohn 55 [Lamia Nowak. '83] Entomophthora Fres. '56 Tarichium Cohn '70 Completoria Lohde '74 Conidiobolus Bref. '84 Basidiobolus Eid. '85 Epichlœa Giard '89 Polyrrhizium Giard 89 Chromostylium Giard '89 Halisaria Giard '89
B. Oomycetæ	
55. Chytridiaceæ	
Olpidieæ	Reessia Fisch '84 Sphærita Dang. '88 Asterocystis De Wild. '93 Olpidium A. Br. '55 Olpidiopsis Corn. '72 Plasmophagus De Wild. '95 Pleocystidium Fisch '84 Olpidiella Lag. '88 Pleotrachelus Zopf '84 Ectrogella Zopf '84 Pleolpidium Fisch. '92 Endolpidium De Wild. '94 Nucleophaga Dang. '96
Synchytrieæ	Rozella Cornu '72 Woronina Cornu '72 Synchytrium DB. '63 Pycnochytrium DB. '63 Micromyces Dang. '88
Rhizidieæ	Endophlyctis Fisch. '92 Rhizophidium Schenk '58 Phyctidium A. Br. '55 Sphærostylidium A. Br. '56 Rhizophlyctis Fisch '92 Nowakowskia Borzì '85 Podochytrium Pfitz. '70 Latrostium Zopf '94 Harpochytrium Lag. '90 Obelidium Now. '76

	Amerosporæ
	Diplophlyctis Schröt. '92 Phlyctochytrium Schröt. '92 Rhizidiomyces Zopf '84 Rhizidium A. Br. '50 Chytridium A. Br. '56 Achlyella Lag. '90 Séptocarpus Zopf '88 Chrysophlyctis Schilb. '96
Cladochytrieæ	Physoderma Wallr. '33 Cladochytrium Now. '76 Amœbochytrium Zopf '84 Nowakowskiella Schröt. '93 Pyroctonum Prun. '94
Hyphochytrieæ	Catenaria Sorok. '76 Hyphochytrium Zopf '84 Polyrrhina Sorok. '76 Tetrachytrium Sorok. '74 Nephromyces Giard '88 Aphanistis Sorok. '89 Saccopodium Sorok. '89 Zygochytrium Sorok. '74
Oochytrieaæ	Diplophysa Schröt. '86 Polyphagus Now. '76 Urophlyctis Schröt. '86
Lagenidieæ	Achlyogeton Schenk '59 Myzocytium Schenk '58 Bicricium Sorok. '89 Lagenidium Schenk '57 Rhizomyxa Borzì '84
56. Ancylistaceæ	Ancylistes Pfitz. '72 Resticularia Dang. '90
57. Monoblepharidaceæ	Monoblepharis Cornu '71 Gonopodya Fisch. '92

	Amerosporæ
58. Saprolegniaceæ Saprolegnieæ	Pythiopsis DB. '88 Saprolegnia Nees '23 (= Diplanes Leitg. '70) Achlya Nees '23 Dictyuchus Leitg. '68 Thraustotheca Humphr. '92 Leptolegnia DB. '88 Astreptonema Hauptf. '95 Aphanomyces DB. '60 Aplanes DB. '88
Leptomiteæ	Leptomitus Agardh '24 (= Apodya Cornu) Apodachlya Prings. '88 Nægeliella Schröt. '93 (= Nægelia Reinsch '76, nec Reg.) Rhipidium Cornu '71 Blastocladia Reinsch '77 ? Rhizogaster Reinsch '75
Pythieæ	Nematosporangium Fisch. '92 Pythium Prings. '58 ? Artotrogus Mont. '45 ? Ostracoblabe B. et Fl. '90 ? Lithopythium B. et Fl. '90
59. Cystopodaceæ	Cystopus Lév. '47
60. Peronosporaceæ	Phytophthora DB. '76 Basidiophora R. et C. '69 Sclerospora Schröt. '76 Plasmopara Schröt. '86 Bremia Reg. '43 Peronospora Corda '37 ? Chlorospora Speg. '91 ? Siphopodium Reinsch '75

	Amaurosporæ		Lamprosporæ
Myxomycetæ **3]. Myxomycetaceæ** Physareæ	Badhamia Bek. '52 Physarum Pers. 1796 ?Crateriachea Rost. '72 Fuligo Hall. 1768 Æthaliopsis Zopf. '84 Cienkowskia Rost. '72 Physarella Peck '82 Craterium Trent. 1797 Leocarpus Link. 1809 Chondrioderma Rost. '73 Trichamphora Jung. '98 Diachræa Fries '25	Heterodermeæ	Lindbladia Fr. '49 Cribraria Pers. 1796 Dictydium Schrad. 1797 (= Heterodictyum Rost. '75)
		Liceeæ	Licea Schrad. 1797 (= Protoderma Rost. '75) Orcadella Wing. '89
		Tubulineæ	Tubulina Pers. 1797 Siphoptychium Rost. '76 Alwisia B. et Br. '73
Didymieæ	Didymium Schrad. 1797 Spumaria Pers. 1797 Lepidoderma De Bary '75	Reticularieæ	Dictydiæthalium Rost. '73 (= Clathroptychium Rost. '75) Enteridium Ehrenb. '18 Reticularia Bull. 1791
Stemoniteæ	Stemonites Gled. 1753 Comatricha Preuss '51 Raciborskia Berl. '88 ?Echinostelium De B. '73 Enerthenema Bowm. '90 (= Ancyrophora Raunk.) Lamproderma Rost. '72 Clastoderma Blytt '80 (= Orthotrichia Wing. '86)	Trichieæ	Trichia Hall. 1768 Oligonema Rost. '75 Calonema Morg. '93 Hemitrichia Rost. '72 (= Hemiarcyria Rost. '75) Cornuvia Rost. '73
		Arcyrieæ	Arcyria Hill 1751 (= Heterotrichia Massee) Lachnobolus Fr. '25 Perichæna Fr. '17 ?Hymenobolina Zuck. '93
Amaurochæteæ	Amaurochæte Rost. '73 Brefeldia Rost. '72 ?Rostafinskia Speg. '80	Margariteæ	Margarita Lister '94 Dianema Rex '91 Prototrichia Rost. '76
		Lycogaleæ	Lycogala Mich. 1729 (= Dermodium Zopf. '75)
		Genera omnino dubia	Bactriexta Preuss '52 Endocalyx B. et Br. '74 Fictoderma Preuss '52 Ostracoderma Fr. '25 Tipularia Chev. '22

	Hyalosporæ
62. Ceratiomyxaceæ	Ceratiomyxa Schröt. '89 (= Ceratium A. S. 1805, nec Schrank 1793, Ceratiopsis De Wild. '96
63. Acrasiaceæ	Copromyxa Zopf '85 Guttulina Cienk. '73 Dictyostelium Bref. '69 Acrasis Van Tieg. '80 Polysphondylium Bref. '84
64. Phytomyxaceæ	Phytomyxa Schröt. '85 Tetramyxa Goeb. '84 Sorosphæra Schröt. '85 Plasmodiophora Wor. '77 Frankia Brunch. '86
65. Myxobacteriaceæ	Chondromyces B. et C. '57 (= Myxobotrys Zuck.) Polyangium Link 1795 (= Myxobacter Thaxt. '92) Cystobacter Schröt. '86 Myxococcus Thaxt. '92
Dubiæ sedis	Vampyrellidium Zopf '85

	Hyalosporæ
66. Monadinaceæ Vampyrilleæ	Spirophora Zopf '85 Haplococcus Zopf '85 Vampyrella Cienk. '82 Leptophrys H. et Less. '85 Endyonema Zopf '85
Bursullineæ	Bursulla Sorok. '76
Monocysteæ	Enteromyxa Cienk. '85 Myxastrum Häckel Cænonia v. Tiegh. '84
Pseudosporeæ	Colpodella Cienk. '82 Pseudospora Cienk. '82 Protomonas Häck. Protochytrium Borzì '84 Diplophysalis Zopf '85
Gymnococcaceæ	Gymnococcus Zopf '85 Aphelidium Zopf '85 Pseudosporidium Zopf '85 Protomyxa Häck. Plasmodium March. et Celli '88 Myxidium Bütschli Sarcocystis Lank. Amœbidium Cienk. '85 Nosema Næg. '57 Endobiella D. Bruyne '88

	Hyalosporæ	Phæosporæ	Psædidymæ	Hyalodidymæ
Deuteromycetæ				
Sphæropsidaceæ				
67. Sphærjoidaceæ				
A. Simplices				
* Calvæ				
α Monachosporæ				
I. Atrichosporæ				
§ Esubiculatæ				
a. Erostres				
† Dialysporæ	Phyllosticta Pers. 1823	2	3	Ascochyta Lib. '31
	10	11	12	13
	19	20	21	22
	Phoma Fr. 1819	Coniothyrium Corda '40	30	31
	37	Harknessia Cooke '81	39	40
	46	47	48	49
	Macrophoma Sacc. '84	Sphæropsis Lév. '45	Diplodia Fr. '49	Diplodina West. '57
	64	Macroplodia Sacc. '84	Macrodiplodia Sacc. '84	67
	73	74	75	Ambrosiella Sacc. '96
	Aposphæria Berk. '60	Sphæromma Sacc. '92	Diplodiella Karst. '84	Pucciniospora Speg. '86
	Dendrophoma Sacc. '80	92	93	Cystotricha B. et Br. '50
	Asteromella P. et T. '80	101	102	103
	Piptostomum Lév. '46	110	111	112
	Crocicreas Fr. '49	119	120	121
	Pyrenotrichum Mont. '43	128	129	130
	Sclerotiopsis Speg. '82	137	138	139
	Plenodomus Preuss '49	Hypocenia B. et C. '74	147	148
	Mycogala Rost. '77	155	156	157
†† Synsporæ	163	164	165	166
	172	173	174	175
b. Rostratæ	Sphæronæma Fr. '23	Næmosphæra Sacc. '84	Pellionella Sacc. '96	Rhynchophoma Karst. '84
	190	Levieuxia Fr. '48	192	193
	Glutinium Fr. '49	200	201	202
§§ Subiculatæ	Chætophoma Cooke '74	Capnodiastrum Speg. '86	Chætodiplodia Karst. '84	211
	Asteroma DC. '15	218	219	Actinonema Fr. '49
	Ypsilonia Lév. '46	227	228	229
	Cicinobolus Ehrenb. '58	236	237	238
II. Trichosporæ	Neottiospora Desm. '43	245	246	Robillarda Sacc. '80
	253	254	255	Tiarospora Sacc. et M. '95
	262	263	264	Darluca Cast. '51

Hyalophragmiæ	Phæophragmiæ	Phæodictyæ	Hyalodictyæ	Scolecosporæ
5	6	7	8	Septoria Fr. '29
14	15	16	17	Rhabdospora Mont. '46
23	24	25	26	Phleospora Wallr. '33
32	33	34	35	Phlyctæna M. et D. '47
41	42	43	44	45
Paolettia Sacc. '96	51	52	53	54
Stagonospora Sacc. '80	Hendersonia Berk. '41	Camarosporium Schulz.'70	62	Collonema Grove '86
68	69	Endobotrya B. et C. '74	71	72
77	78	79	80	81
86	Hendersoniella Sacc. '84	Cytosporium Peck '79	89	90
95	96	97	98	99
104	105	106	107	108
113	Angiopoma Lév. '41	115	116	Gelatinosporium Peck '71
122	123	124	125	126
131	132	133	134	135
140	141	142	143	144
149	150	151	152	Micula Duby '58
158	159	160	161	Micropera Lév. '46
167	Prosthemium Kunze '17	169	170	171
176	Eriosporina Togn. '95	178	179	180
185	Macrobatis Starb. '98	187	188	Sphærographium Sacc.'84
Topospora Fr. '35 (= Mastomyces Mont. '48)	195	196	197	Cornularia Karst '84
203	204	205	206	207
212	213	214	215	216
Asteromidium Sacc. '84	Coutarea Cast. '45	223	224	225
230	231	232	233	234
239	240	241	242	243
Kellermania E. et Ev. '95	Cryptostictis Fuck. '69	250	251	Dilophospora Desm. '40
257	258	259	260	261
266	267	268	269	270

	Hyalosporæ	Phæosporæ	Phæodidymæ	Hyalodidymæ
β Seirosporæ	Sirococcus Preuss '54	Sirothecium Karst. 87	273	274
	Peckia Clint. '75	281	282	283
** Setosæ	Muricularia Sacc. '79	290	291	292
	Staurochæta Sacc. '75	299	300	301
	Melochæta Sacc. '84	Chætomella Fuck. '69	Chætodiplodia Karst. '84	Didymochæta Sacc. '98
	Pyrenochæta D. N. '49	317	318	319
	Vermicularia Er. '49	326	327	328
B. Compositæ	Dothiorella Sacc. '80	Haplosporella Speg. '81	Botryodiplodia Sacc. '80	337
	Dothiopsis Karst. '84	344	Nothopatella Sacc. '92	346
	Rabenhorstia Fr. '49	(Hypocenia B. et C. '74)	354	355
	Anthrocoderma Speg. '87	362	363	364
	Fuckelia Bon. '70	Weinmannodora Fr. '49	372	373
	Placosphæria Sacc. '80	Discomycopsis J. Müll. '94	381	382
	Fusicoccum Corda '29	389	390	391
	Gamosporella Speg. '88	398	399	400
	Cytosporella Sacc. '80	407	408	409
	Cytospora Ehrenb. '18	416	Lesiodiplodia E. et Ev. '96	Cytodiplospora Oud. '94
	Lamyella Fr. '49	425	426	427
	Torsellia Fr. '49 sec Starb.	434	435	436
	Ceuthospora Fr. '25	Cytoplea B. et S. '84	444	445
68. Nectrioidaceæ				
A. Zythiæ				
† Simplices				
* Erostres	Eurotiopsis Karst. '89	2	3	4
	Zythia Fr. '49	11	Pseudodiplodia Karst. '84	13
	Chætozythia Karst. '88	20	21	22
	Collacystis Kunze '27	29	30	31
	Roumegueriella Speg. '80	38	39	40
	Libertiella S. et R. '80	47	48	49
	Dichlæna Mont. et Dur. '49	56	57	58
* Rostratæ	Sphæronæmella Karst. '84	65	66	67
	Treleasiella Speg. '96	74	75	76
†† Compositæ	Aschersonia Mont. '48	Martinella C. et M. '89	84	85
	Munkia Speg. '86	92	93	94
B Patellineæ	Hysteromyxa S. et E. '82	101	102	103
	Patellina Speg. '81	110	111	112
	Ollula Lév. '63	119	120	121
	Cyphina Sacc. '84	128	129	130

Hyalophragmiæ	Phæophragmiæ	Phæodictyæ	Hyalodictyæ	Scolecosporæ
275	276	277	278	279
284	285	286	287	288
293	294	295	296	297
302	303	304	305	306
311	312	313	314	315
320	Woinowicia Sacc. '92	322	323	Gamospora Sacc. '85
329	330	331	332	Trichoseptoria Cav. '92
338	Hendersonula Speg. '80	Dichomera Cooke '78	341	342
347	348	349	350	351
356	357	358	359	360
365	366	367	368	369
374	375	376	377	Septoriella Oud. '89
383	384	385	386	Eriospora B. et Br. 50 (nec Hochst. 50)
392	393	394	395	396
401	402	403	404	405
410	411	412	413	414
419	420	421	422	Cytosporina Sacc. '81
428	429	430	431	432
437	438	439	440	441
446	447	448	449	450
5	6	7	8	9
Stagonopsis Sacc. '84	15	16	17	Trichocrea March. '91
23	24	25	26	27
32	33	34	35	36
41	42	43	44	45
50	51	52	53	54
Chiastospora Riek. '52	60	61	62	63
68	69	70	71	Rhynchomyces S. et M. '85
77	78	79	80	81
86	87	88	89	Polystigmina Sacc. '84
95	96	97	98	99
104	105	106	107	108
113	114	115	116	Trichosperma Speg. '88
122	123	124	125	126
131	132	133	134	135

	Hyalosporæ	Phæosporæ	Phæodidymæ	Hyalodidymæ
69. Leptostromacea				
A Simplices				
† Astomæ v. poro pertusæ				
* Atrichosporæ	Leptothyrium Kunze '23	Pirostoma Fr. '49	Diplopeltis Pass. '90	Leptothyrella Sacc. '85
	Eriothyrium Speg. '87	11	12	13
	Trichopeltulum Speg. '89	Asterostomella Speg. '86	21	22
	Piggotia B. et Br. '51	29	30	31
	Melasmia Lév. '46	Lasmenia Speg. '86	39	40
	Actinothecium Ces. '55	47	48	49
** Trichosporæ	55	56	57	58
	64	65	66	67
	73	74	75	76
†† Rimosæ	Leptostroma Fr. '18	83	84	85
	Labrella Fr. '25	92	93	94
	?Sacidium Nees '23	101	102	103
B Compositæ	Trichophila Oud. '89	110	111	112
70. Excipulaceæ				
A Glabrescentes				
† Subcupulatæ	Godroniella Karst. '84	2	3	4
	Excipula Fr. '23	11	12	13
	Melanophræa Sacc. '84	20	21	22
	Heteropatella Fuck. '73	29	30	Pseudopatella Sacc. '84
	Dothichiza Lib. ap. R. et Sp. '80	38	39	40
	Lemalis Fr. '49	47	48	49
	Catinula Lév. '48	56	57	58
	Discula Sacc. '84	Phæodiscula Cub. '91	66	Discella B. et Br. '50
†† Subvalvatæ	Sporonema Desm. '47	74	75	76
	Pleococcum D. et Mont. '49	83	84	85
	Psilospora Rabenh. '56	92	93	94
B Vestitæ	Amerosporium Speg. '82	Coniothyriella Speg. '89	102	103
	Dinemasporium Lév. '46	110	111	112
	Stauronema Sacc. '84	119	120	121
	Polynema Lév. '46	128	129	130
Sphæropsidaceæ dubiæ	Coccobolus Wallr. '33	137	138	139
	Amphisporium Link '16	146	147	148
	Endotrichum Corda '38	155	156	157
	Neurœcium Kunze ap. Fr. '49	164	165	166
	Microsticta Desm. '49	173	174	175
	(Pleosporopsis Auct. (= Ægidium!, nec Oerst.)	182	183	184

Hyalophragmiæ	Phæophragmiæ	Phæodictyæ	Hyalodictyæ	Scolecosporæ
5	6	7	8	9
14	15	16	17	Chæ[illegible]topeltis Sacc. '97
23	24	25	26	27
32	33	34	35	36
Cystothyrium Speg. '87	42	43	44	Melophia [illegible] Sacc. '84
50	51	52	53	[illegible] 54
59	60	61	62	Actinothyrium K[illegible]nze '23
Discosia Lib. '37	69	70	71	72
Entomosporium Lév. '56	78	79	80	81
86	87	88	89	Leptostromella Sacc. '82
95	96	97	98	99
104	105	106	107	108
113	114	115	116	Brunchorstia Eriks. '91

5	6	7	8	9
Excipulina Sacc. '84	15	16	17	18
23	24	25	26	27
32	33	34	35	Oncospora Kalchb. '80
41	42	43	44	Schizothyrella Thüm. '80
50	51	52	53	54
59	60	61	62	Pseudocenangium K. '85
Pilidium Kunze '23	69	70	71	Protostegia Cooke '81
77	78	79	80	81
86	87	88	89	90
95	96	97	98	99
Excipularia Sacc. '84	105	106	107	108
113	114	115	116	117
Acanthothecium Speg. '89	123	124	125	126
131	132	133	134	Ephelis Fr. '49
140	141	142	143	144
149	150	151	152	153
158	159	160	161	162
167	168	169	170	171
176	177	178	179	180
185	186	187	188	189

	Hyalosporæ	Phæosporæ	Phæodidymæ	Hyalodidymæ
71. Melanconiaceæ				
A Atrichosporæ				
† Inermes				
*Monachosporæ	Hainesia E. et S. '84	2	3	4
	Glœosporium Desm. et M. '49	Basiascum Cav. '88	12	Marsonia Fisch. '74
	Myxosporium Link '25	Melanconium Link 1809	Didymosporium Nees. '16	Septomyxa Sacc. '84
	28	Cryptomela Sacc. '84	Epiclinium Fr. '49	31
	Næmospora Pers. 1801	38	39	40
	Melanostroma Corda '29	47	48	49
	55	56	57	58
**Seirosporæ	Hypodermium Link '16	65	66	67
	Myxosporella Sacc. '81	74	75	76
	Blennoria Fr. '25	83	84	85
	Agyriella Sacc. '84	Thyrsidium Mont. '36	Bullaria DC. 1805	94
	Trullula Ces. '52	101	102	103
	Cesatia Rabenh.. '51	110	111	112
	Hormococcus Pr. '52	119	120	121
	Myxormia B. et Br. '50	128	129	130
	Bloxamia B. et Br. '54	137	138	139
†† Setosæ	Colletotrichum Corda '37	146	147	148
	154	155	156	157
	163	164	165	166
B Trichosporæ	Pestalozziella S. et. E. '82	173	Neobarclaya Sacc. '95 (= Barclayella S. '92 nec Diet.)	Glœosporella Cav. '92
	181	182	183	184
C Staurosporæ	190	191	192	193
	199	200	201	202

Hyalophragmiæ	Phæophragmiæ	Phæodictyæ	Hyalodictyæ	Scolecosporæ
Rhopalidium M. et Fr. '49	6	7	8	9
Septoglœum Sacc. '80	15	16	17	Cylindrospo[illegible]rium Ung. '33
23	Stilbospora Pers. 1801	Steganosporium Corda '26	26	Cryptosp[illegible]ium Kunze '17
32	33	34	35	[illegible] '30
41	42	43	44	Libertella De[illegible]
50	Coryneum Nees '16	52	53	54
59	Scolecosporium Lib. ap. Sacc. '81	61	62	63
68	69	70	71	72
77	78	79	80	81
86	Seiridium Nees '16	Phragmotrichum K.etS. '23	89	90
95	Seiridiella Karst. '90	97	98	99
104	105	106	107	108
113	114	115	116	117
122	123	124	125	126
131	132	133	134	135
140	141	142	143	144
149	150	151	152	153
158	Hyaloceras M. et D. '46	160	161	162
167	Diploceras Sacc. '92	169	170	171
Pestalozzina Sacc. '84.	Pestalozzia DN. '41	178	Morinia B. et Bres. '89	180
185	Monochætia Sacc. '84	187	188	189
Prosthemiella Sacc. '81	Asterosporium Kunze '19	196	197	198
Psammina R. et S. '91	204	205	206	207

72. Mucedinaceæ

	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Staurosporæ	Helicosporæ
Hyphomycetæ Laxæ [Mucedin. et Demat.] I. *Homochromæ* * Micronemeæ § Monachosporæ *a* Trichosporæ	Chromosporium Corda '29	2	3	4	5
	12	13	Fusoma Corda '37	15	16
	Allantospora Wakk. '96	24	25	Prismaria Pr. '51	Helicomyces Link 1809
	Coccospora Wallr. '33	35	Paraspora Grove '84	Trinacrium Riess '52	38
	Coccosporella Karst. '92	46	Rotæa Ces. '51	Titæa Sacc. '76	Helicoon Morg. '92
	56	57	58	Tridentaria Pr. '52	60
	Sorosporella Sorok. '89	68	69	Desmidiospora Thaxt. '91	71
	Microstroma Niessl '65	79	80	81	82
	(Massospora = Entomophthora)	90	91	92	93
	100	101	102	103	104
	Glomerularia Peck. '84	112	113	114	115
	Selenotila Lagerh. '92	123	? Milowia Massee '84	125	126
b Trichosp.	133	134	Mastigosporium Riess '52	136	137
§§ Seirosporæ	Glycophila Mont. '51	145	146	147	148
	[Chalara Corda]	156	157	158	159
	Malbranchea Sacc. '82	167	168	169	170
	Sporendonema (Desm.) Oud. '85	178	179	180	181
	Oospora Wallr. '33	Horniactis Preuss '51	[Septocylindrium Bon.]	191	192
	Halobyssus Zuk. '92	200	201	202	203
	Fusidium Link 1809	211	212	213	214
	Monilia Pers. 1797	222	223	224	225
	Cylindrium Bon. '51	233	Septocylindrium Bon. '51	235	236
	Polyscytalum Riess '53	244	245	246	247
	Geotrichum Link 1809	255	256	257	258
	265	266	267	268	269
	Oidium Link 1809	277	278	279	280
	287	288	289	290	291
	? Pæpalopsis Kühn '83	299	300	301	302
	309	310	311	312	313

73. Dematiaceæ

Helicosporæ	Staurosporæ	Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ
6	Cheiromyces Berk. '57	Stigmella Lév. '42	Stigmina Sacc. '80	Dicoccum Corda '29	Coniosporium Link 1809
17	18	19	Fusariella Sacc. '84	21	Fusella Sacc. '86
licopsis Karst. '89	Ceratosporium Schw. '34	Coniothecium Corda '36	ClasterosporiumSchw. '34	32	33
39	40	41	[Brachydesmium Sacc. '86]	43	44
licoma Corda '37 em. Sacc.	Hirudinaria Ces. '56	Tetraploa B. et Br. '50	Ceratophorum Sacc. '80	Cycloconium Cast. '45	55
61	62	63	Pleiochæta Sacc. '95	65	66
licosporiumNees'16	73	Dictyosporium Corda '36	Urosporium Fing. '36	76	77
83	84	Speira Corda '37	Cryptocoryneum Fuck. '69	87	88
94	95	96	97	98	99
105	106	Sporodesmium Link 1809	108	109	110
116	117	118	119	120	Echinobotryum Corda 42
127	128	129	130	131	132
138	139	140	141	142	143
149	150	151	Sporoschisma B. et Br. '47	153	154
160	161	162	163	164	165
171	172	173	174	175	176
182	183	184	185	186	187
193	194	Sirodesmium DN. '50	Septonema Corda '37	Bispora Corda '37	Torula Pers. '1801
204	205	206	207	208	Hormiactella Sacc. '86
215	216	217	218	219	Gongromeriza Pr. '51
226	227	228	229	230	231
237	238	239	240	241	242
248	249	250	251	252	253
259	260	261	262	263	Gyroceras Corda '37
270	271	272	273	274	Helicocephalum Thaxt. '91
281	282	283	284	285	Hormiscium Kunze '17
292	293	294	295	296	[Epochnium Link '09
303	304	305	Polydesmus Mont. '45	307	Prophytroma Sorok. '77
314	315	316	317	318	Heterobotrys Sacc. '80

	72. Mucedinaceæ (seq.)				
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Staurosporæ	Helicosporæ
**Macronemeæ					
† Capitatæ					
§ Monacho-sporæ	Rhopalomyces Corda '39	321	322	323	324
	Œdocephalum Preuss '51	332	333	334	335
	Sigmoideomyces Thaxt. '91	343	344	345	346
	Coronella Crouan '67	354	355	3 6	357
	Hyalopus Corda '38	365	366	3 7	368
	Doratomyces Corda '37	376	377	378	379
	386	387	388	389	390
	Haplotrichum Link '24	Cephalothecium Corda '38	Dactylaria Sacc. '80	400	401
	408	409	410	411	412
	Botryosporium Corda '37	420	421	422	423
	Coëmansiella Sacc. '83	431	432	433	434
	Cephalosporium Corda '39	442	443	444	445
	[Papulospora Pr. cfr. p. 34]	453	454	455	456
	Trichoderma Pers. 1797	464	465	466	467
	474	475	476	477	478
	485	486	487	488	489
	Corethropsis Corda '39	497	498	499	500
	507	508	509	510	511
	518	519	520	521	522
	Spicularia Pers. '22	530	531	532	533
	Cylindrocephalum Bon. '51	541	542	543	544
	Cephocylindrium Sac. '86	552	553	554	555
§§ Seirosporæ					
	Aspergillus Mich. 1729	563	564	565	566
	Sterigmatocystis Cram. '59	574	575	576	577
	Dimargaris v. Tiegh. '75	585	586	587	588
	Dispira v. Tiegh. '75	596	597	598	599
	Amblyosporium Fres. '63	607	608	609	610
	Penicillium Link 1809	618	619	620	621
	628	629	630	631	632
	Citromyces Wehm. '93	640	641	642	643
	Gliocladium Corda '40	651	652	653	654
	Briarea Corda '37	662	663	664	665

73. Dematiaceæ (seq.)

Helicosporæ	Staurosporæ	Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ
325	326	327	328	329	330
336	337	338	339	340	341
347	348	349	350	351	352
358	359	360	361	362	363
369	370	371	372	373	374
380	381	382	383	384	385
391	392	393	394	395	Camptoum Link '24
402	403	Dactylosporium Harz '71	Acrothecium Preuss '51	Cordana Preuss '51	Acrotheca Fuck '69
413	414	415	[Acrothecula Sacc. '86]	Beltrania Penz. '82	Synsporium Pr. '49
424	425	426	427	428	429
435	436	437	438	439	440
446	447	448	449	450	451
457	458	459	460	461	462
468	469	470	471	472	473
479	480	481	482	483	Haplobasidium Eriks. '89
490	491	492	493	494	Periconia (Tode) Bon. '51
501	502	503	504	505	Stachybotrys Corda '42
512	513	514	515	516	Periconiella Sacc. '85
523	524	525	526	527	Cephalotrichum Bark. '60
534	535	536	537	538	539
545	546	547	548	549	550
556	557	558	559	560	561
567	568	569	570	571	572
578	579	580	581	582	583
589	590	591	592	593	594
600	601	602	603	604	605
611	612	613	614	615	616
622	623	624	625	(Diplococcium Grove)	Graphiopsis Trail '88
633	634	635	636	637	(Hormodendron Bon.)
644	645	646	647	648	649
655	656	657	658	659	660
666	667	668	669	670	671

	72. Mucedinaceæ (seq.)				
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Staurosporæ	Helicosporæ
†† Non capitatæ nec verticillatæ § Monachosporæ	Haplaria Link 1809	673	674	675	676
	Acladium Link 1809	684	685	686	687
	694	695	696	697	698
	Cylindrotrichum Bon. '51	706	707	708	709
	Blastomyces Cost. et R. '88	717	718	719	720
	Physospora Fr. '49	728	729	730	731
	738	739	740	741	742
	Hyphoderma Fr. '49	750	751	752	753
	760	761	762	763	764
	771	772	773	774	775
					Hyalodictyæ
	Acremonium Link 1809	Trichothecium Link 1809	Monacrosporium Oud. '85	785	Synthetospora Mor '92
	793	Didymopsis S. et M. '85	Dactylella Grove '84	796	797
	804	805	806	807	808
	Rhinotrichum Corda '37	816	817	818	819
	Olpitrichum Atkins. '94	827	828	829	830
	837	838	839	840	841
	Sporotrichum Link 1809	Diplosporium Bon. '51	Blastotrichum Corda '38	851	852
	859	860	861	862	863
	Sporotrichella Karst. '87	871	872	873	874
	881	882	883	884	885
	Monosporium Bon. '51	893	894	895	896
	Langloisula E. et Ev. '89	904	905	906	907
	Botrytis Mich. 1729	915	916	917	918
	Polyactis Link 1809	926	927	928	929
	Phymatotrichum Bon '51	937	938	939	940
	Cristularia Sacc. '86	948	949	950	951
	Tolypomyria Preuss. '52	959	960	961	962
	Martensella Coem. '63	970	971	972	973
	Cylindrophora Bon. '51	981	982	983	984

73. Dematiaceæ (seq.)

Helicosporæ	Staurosporæ	Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ
677	678	Coccosporium Corda '37	Spondylocladium Martius '17	681	682
688	689	690	691	692	Goniosporium Link '24
699	700	701	702	703	Arthrinium Kunze '17
710	711	712	713	714	715
721	722	723	724	725	726
732	733	734	735	(Cladotrichum Corda)	Oedemium Link '24
743	744	745	746	747	Cystophora Rabenh. '44
854	755	756	Ophiotrichum Fr. '49	758	759
765	766	767	Drepanospora B. C. '75	769	Cordella Speg. '86
776	777	Sarcinella Sacc. '77	779	780	Sporoglena Sacc. '94
787	Triposporium Corda '37	Mystrosporium Corda '37	(Napicladium Thüm.)	Trichocladium Harz. '71	Acremoniella Sacc. '81
798	799	800	801	802	Monotospora Corda '37
809	810	811	812	813	Hadrotrichum Fuck. '69
820	821	822	823	824	825
831	832	833	Camposporium Hark. '84	Cladotrichum Corda '37	Rhinocladium S. et M. '85
842	843	844	Heterosporium Kl. '32	[Didymothamnium Sacc. '86]	Streptothrix Corda '42
853	854	Stemphylium Wallr. '33	Helminthosporium Link 1809	Cladosporium Link '16	Trichosporium Fr. '49
864	865	Macrosporium Fr. '21	Brachysporium Sacc. '80	868	Acrospeira B. et Br. '57
875	876	Trichægum Corda '37	878	879	880
886	887	Septosporium Corda '37	889	890	891
897	898	899	900	901	Virgaria Nees '16
908	909	910	911	912	913
919	920	921	922	923	Campsotrichum Ehrenb. '18
930	931	932	933	934	935
941	942	943	944	945	946
952	953	954	955	956	957
963	964	965	966	967	968
974	975	976	977	978	979
985	986	987	988	989	990

	72. Mucedinaceæ (seq.)				
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Scolecosporæ	Helicosporæ
§ Moncosporæ (seq.)	Cylindrodendron Bon. '51	992	993	994	995
	Ophiocladium Cav. '93	1003	1004	1005	1006
	1013	1014	1015	1016	1017
	1024	Bostrichonema Ces. '58	Piricularia Sacc. '80	1027	1028
	Ovularia Sacc. '80	Didymaria Corda '42	Ramularia Ung. '33	1038	1039
	1046	1047	(Cercosporella Sacc.)	Cercosporella Sacc. '80	1050
	1057	1058	1059	1060	1061
	Monopodium Delacr. '90	1069	1070	1071	1072
	Sepedonium Link '09	Mycogone Link 1809	1081	1082	1083
	Chætoconidium Zuk. '89	1091	1092	1093	1094
	Stephanoma Wallr. '33	1102	1103	1104	1105
	Asterophora Ditm. '39	1113	1114	1115	1116
	Pellicularia Cooke '76	1124	1125	1126	1127
	1134	1135	1136	1137	1138
§§ Seirosporæ	Acrospira Mont. '57 (*)	1146	1147	1148	1149
	1156	1157	1158	1159	1160
	1167	1168	1169	1170	1171
	1178	1179	1180	1181	1182
††† Verticillatæ.	Pachybasium Sacc. '85	1190	1191	1192	1193
	Verticillium Nees '16	Diplocladium Bon. '51	Dactylium Nees '16	1203	1204
	Oncocladium Wallr. '33	1212	1213	1514	1215
	Gliocephalum Sacc. '86	1223	1224	1225	1226
	Verticilliopsis Cost. '92	1234	1235	1236	1237
	Cladobotryum Nees '16	1245	1246	1247	1248
	Acrocylindrium Bon. '51	Cylindrocladium Morg. '92	1257	1258	1259
	Uncigera Sacc. '85	1267	1268	1269	1270
	Calcarisporium Preuss '51	1278	1279	1280	1281
	Coëmansia v. Tieg. '73	1289	1290	1291	1292
	Acrostalagmus Corda '38	1300	Mucrosporium Preuss '51	1302	1303
	Clonostachys Corda '39	1311	1312	1313	1314

(*) Valde affinis homonymæ *Acrospiræ* B. et Br. '57 ! (n. 869).

73. Dematiaceæ (seq.)

Helicosporæ	Scolecosporæ	Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ
996	997	998	999	1000	1001
1007	1008	1009	1010	1011	1012
1018	1019	1020	1021	Passalora Fr. et M. '49	1023
1029	1030	1031	1032	Scolecotrichum K. et S. '17	1034
1040	1041	1042	Napicladium Thüm. '75	Fusicladium Bon. '51	Glenospora B. et C. '76
1051	Cercospora Fres. '63	1053	(Cercospora Fres.)	1055	1056
1062	1063	1064	1065	Polythrincium Kunze '17	1067
1073	1074	1075	1076	1077	1078
1084	1085	1086	1087	1088	1089
1095	1096	1097	1098	1099	1100
1106	1107	1108	1109	1110	1111
1117	1118	1119	1120	1121	1122
1128	1129	1130	1131	1132	Zygodesmus Corda '37
1139	1140	1141	1142	1143	[Hypochniella Sacc. '86]
1150	1151	Alternaria Nees '16	Dendryphium Wallr. '33	Hormodendrum Bon. '53	1155
1161	1162	1163	Brachycladium Corda '38	Epochnium Link 1809	Dematium Pers. 1797
1172	1173	1174	1175	Diplococcium Grove '85	Prophytroma Sorok. '77
1183	1184	1185	1186	(Cladotrichum Corda '37)	Catenularia Grove '86
1194	1195	(Fumago Pers.)	1197	Fumago Pers. 1822	1199
1205	1206	1207	1208	1209	1210
1216	1217	1218	1219	1220	1221
1227	1228	1229	1230	1231	1232
1238	1239	1240	1241	1242	1243
1249	1250	1251	1252	1253	1254
1260	1261	1262	1263	1264	1265
1271	1272	1278	1274	1275	1276
1282	1283	1284	1285	1286	1287
1293	1294	1295	1296	1297	1298
1304	1305	1306	1307	1308	1309
1315	1316	1317	1318	1319	1320

	72. Mucedinaceæ (seq.)			73. Dematiaceæ (seq.)
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Phæosporæ
†††Verticillatæ (seq.)	Sceptromyces Corda '37	1322	1323	1324
	Spicaria Harz '71	Didymocladium Sacc. '80	1327	1328
††††Nodosæ	Gonatorrhodum Corda '39	1330	1331	1332
	Gonatorrhodiella Thaxt. '91	1334	1335	1336
	Gonatobotrys Corda '39	Arthrobotrys Corda '39	1339	Gonatobotryum Sacc. '80
	Nematogonium Desm. 34	1342	1343	1344

73. Dematiaceæ (seq.)

	Hyalosporæ		Hyalosporæ
II. Dichromæ (Hyphæ fuscæ, conidia subhyalina)		§ Monachosporæ (seq.)	Mesobotrys Sacc. '80 Monispora Pers. '22 [Eriomene Sacc. '86]
* Heteropodæ	Sarcopodium Ehrenb. '18 [Tricholeconium Corda '37] Helicotrichum Nees '18 Botryotrichum S. et M. '85 [Peziotrichum Sacc. '95] Circinotrichum Nees '18 Ceratocladium Corda '39 Ellisiella Sacc. '80 Steirochæte Br. et Casp. '53		Verticicladium Preuss '51 Zygosporium Mont. '42 Gonytrichum Nees '18 Cladorrhinum S. et M. '85
		§§ Cephalosporæ	Scopularia Preuss. '51, nec Lindl. '34 Fuckelina Sacc. '75 Stachylidium Link 1809
** Homopodæ	Myxotrichella Sacc. '92	§§§ Seirosporæ	Haplographium B. et Br. '59 Rhipidocephalum Trail '88 Chaetara Corda '38
§ Monachosporæ	Chloridium Link 1809 [Psilobotrys Sacc. '86] Chætopsis Grev. '25		

	Hyalostilbeæ			
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Scolecosporæ
74. Stilbaceæ				
§ Monachosporæ	Stilbum Tode 1790	Didymobotryum Sacc. e. p.	Arthrosporium Sacc '80	Stilbomyces Ellis '95
	[Leiostilbum Sacc. '86]	12	13	14
	Polycephalum K. et C.'80	22	23	24
	Tilachlidium Preuss '51	32	33	34
	Corallodendron Jungh.'38	42	43	44
	Cladosterigma Pat. '92	52	53	54
	(Excl, Chondromyces B. et C. cfr. p. 38)	62	63	64
	Ciliciopodium Corda '36	72	73	74
	Clavularia Karst. '82	82	Isariopsis Fres. '63	84
	Isaria Pers. 1797	92	93	94
	(Excl. Ceratiomyxa Schröt.)	102	Atractium Link 1809	104
	Martindalea Sacc. et S. '85	112	113	114
	Atractiella Sacc. '83	122	123	124
	Actiniceps B. et Br. '74	132	133	134
	(Excl. Pilacre Fr. cfr. p. 13).	142	143	144
§§ Seirosporæ	Microspatha Karst. '89	152	153	154
	161	162	Symphyosira Preuss '52	164
	Coremium Link 1809	172	173	174
	Lasioderma Mont. '45	182	183	184
	191	192	193	194
	Gibellula Cav. '94	202	203	204
	Peribotryum Fr. '32	212	213	214

Phæostilbeæ

Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ	Hyalosporæ	Staurosporæ
Sclerographium Berk. '54	Arthrobotryum Ces. '54	Didymobotryum Sacc. '86	Sporocybe Fr. 25	Graphium Corda '37	Riessia Fres. '52
15	16	17	Saccardæa Cav. '94	Harpographium Sacc. '80	20
25	26	27	28	29	30
35	36	37	38	39	40
45	46	47	48	49	50
55	56	57	58	59	60
65	Podosporium Schw. '32	67	Basidiella Cooke '78	69	70
75	76	77	78	79	80
85	Podosporiella E.E. '94	87	88	89	90
95	96	97	98	99	100
105	106	107	108	109	110
115	116	117	118	119	120
125	126	127	128	129	130
135	136	137	138	Stemmaria Preuss '51	140
145	146	147	Briosia Cav. '88	Graphiothecium Fuck. '69	150
155	Dendrographium Massee '92	157	158	Stysanus Corda '37	160
165	166	167	168	Trichurus C. et S. '96	170
175	176	177	178	179	180
185	186	187	188	Anthromyces Fres '50	190
195	196	197	198	Heydenia Fres. '52	200
205	206	207	208	209	210
215	216	217	218	219	220

	Tuberculariaceæ mucedineæ				
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Scolecosporæ	Helicosporæ
75. Tuberculariaceæ					
A Glabrescentes	Tubercularia Todc 1790	Cosmariospora Sacc. '80	Bactridium Kunze '17	4	Everhartia S. E. '82
	10	Patouillardiella Speg. '89	Pithomyces B. et Br. '73	13	Troposporella Karst. '92
	Chætospermum Sacc. '92	20	Ciliofusarium Rostr. '93	22	23
	Endoconidium Pr. et Dol. '91	29	30	31	32
	Granularia Sacc. '82	38	Microcera Desm. '48	40	Hobsonia B. M. '91
	46	47	Heliscus Sacc. '80	49	Troposporium Harkn. '84
	Dendrodochium Bon. '51	56	Fusarium Link 1809	58	59
	[Fusamen Sacc. '86]	65	[Fusisporium Link 1809]	67	68
	[Leptosporium Sacc. '86]	74	75	76	77
	Tuberculina Sacc. '80	83	84	85	86
	Illosporium Martius '17	92	Selenosporium Corda '37	Lituaria Riess '52	95
	100	101	102	Dicranidion Harkn. '84	104
	DacryodochiumKarst. '96	110	111	112	113
	Phyllædia Fr. '25	119	Pionnotes Fr. '49	121	122
	Aegerita Pers. 1797	128	129	130	131
	Sphærosporium Schw. '34	137	138	139	140
	Fusicolla Bon. '51	146	(Fusarium Link)	148	149
	Sphacelia Lév. '27	155	156	157	158
	Hymenula Fr. '25	164	165	166	167
	172	173	174	175	176
	Myxonema Corda '37	182	183	184	185
	Dacrymycella Bizz. '85	191	192	193	194
	Trichotheca Karst. '87	200	201	202	203
	Myropyxis Ces. '51	209	210	211	212
	Epidochiopsis Karst. '92	218	219	Trigliphyum Fres. '52	221
	226	227	228	229	230
	Diaphanium Fr. '35	236	237	238	239
	Pactilia Fr. '49	245	246	247	248
	Cylindrocolla Bon. '51	254	Discocolla Pr. et D. '94	256	257
	Sphæridium Fr. '52	Endodesmia B. et Br. '71	264	265	266
	Sphærocolla Karst. '92	272	273	274	275
	Sporoderma Mont. '56	281	282	283	284
	Patouillardia Roum. '85	290	291	292	293

Tuberculariaceæ dematieæ

Phæodictyæ	Phæophragmiæ	Phæodidymæ	Phæosporæ
Spegazzinia Sacc. '81	Exosporium Link 1809	Pucciniopsis Speg. '86	Epicoccum Link 1816
15	16	17	18
24	25	26	27
33	34	35	36
42	43	Epiclinium Fr. '4	Spermodermia Tode 1790
51	52	53	Triplicaria Karst. '89
60	61	62	63
69	70	71	72
78	79	80	81
87	88	89	90
96	97	Sclerococcum Fr. '19	Bonplandiella Speg. '86
105	106	107	Strumella Fr. '25
114	115	116	117
123	124	125	Myriophysa Fr. '49
132	133	134	135
141	142	143	Sclerodiscus Pat. '90
150	151	152	153
159	160	161	162
168	169	170	Hymenopsis Sacc. '86
177	178	179	[Hymenobactron Sacc. '86]
186	187	188	189
195	196	197	198
204	205	206	207
213	214	215	216
222	223	224	Epidochium Fr. '49
231	232	233	Hormodochium Sacc. '86
240	241	242	243
249	250	251	252
258	259	260	261
267	Trimmatostroma Corda '37	269	Sphæromyces Mont. '45
276	277	278	279
285	286	287	Actinomma Sacc. '84
294	295	296	297

	Tuberculariaceæ mucedineæ			Tuberculariaceæ dematieæ	
	Hyalosporæ	Hyalodidymæ	Hyalophragmiæ	Phæodidymæ	Phæosporæ
A Glabrescentes (seq.)	Bizzozeriella Speg. '88	299	300	301	302
	Patellina Speg. '81	304	305	306	307
	Hyphostereum Pat. '92	309	310	311	312
	Cephalodochium Bon. '51	314	315	316	317
	Thecospora Harkn. '84	319	320	321	322
	Thozetia Berk. '80	324	325	326	327
	Stigmatella B. et C. '57	329	330	331	332
	Scoriomyces Ell. et Ev. '85	334	335	336	337
B Setulosæ	Periola Fr. '23	Leptotrichum Corda '42	340	341	342
	Volutellaria Sacc. '82	344	345	346	Trichostroma (Link ?) Corda '30
	Volutella Tode 1790	349	350	351	Myrothecium Tode 1790
	Guelichia Speg. '86	354	355	356	Chætostróma Corda '29

HYMENOMYCETÆ

Syll. V p. 3, IX p. 1, XI p. 1.

Fam. 1. **Agaricaceæ** Fr. *)

Sect. 1. **Leucosporæ** Fr.

AMANITA Pers. — Syll. V, p. 8, IX, p. 1, XI, p. 1.

1. **Amanita praticola** Peck, Bull. Torr. Bot. Cl. 1897, p. 138. — 1
Pileo tenui convexo, leniter verrucoso, albo, plus minus luteo-tincto; carne alba; lamellis sublatis, subdistantibus, stipitem attingentibus, albis; stipite æquali v. sursum leniter attenuato, basim versus subsquamoso, albo v. albido, persistenter annulato; sporis magnis, late ellipticis, 13–14 1/2 × 8–9.

Hab. ad terram nudam in pratis, Kansas Amer. bor. (Bartholomew). — Pileus 4–8 cm. latus; stipes 5–7 cm. longus, 1/2–1 cm. crassus. Stipitis basis non distincte bulbiformis, etiam reliquiæ volvæ indistinctæ sunt. Cl. Peck scripsit «prairiicola» nomen nimis barbarum.

2. **Amanita abrupta** Peck, Bull. Torr. Bot. Cl. 1897, p. 138. — Pileo 2
tenui, late convexo v. subplano, verrucis minutis angulosis v. pyramidalibus erectis subevanescentibus tecto, albo, ad marginem leniter striato; carne alba; lamellis modice confertis, stipitem attingentibus ac striis in eum decurrentibus, albis; stipite gracili, glabro, solido, bulboso, albo; bulbo abrupte subgloboso, sæpe basi hyphis mycelicis albis persistentibus tecto; annulo membranaceo, persistente; sporis late ellipticis v. subglobosis, 8–10 1/2 × 6 1/2–8.

Hab. in silvis in Alabama Amer. bor. (Underwood). — Pileus 5–10 1/2 cm. latus; stipes 6–10 1/2 cm. longus, 1/2–1 cm. crassus. Ad *Amanitam rubescentem, A. spissam* etc. accedit.

3. **Amanita candida** Peck, Bull. Torr. Bot. Cl. 1897, p. 137. — Pileo 3
tenui, late convexo v. subplano, verrucis numerosis minutis erectis angulosis v. pyramidalibus facile secedentibus tecto, ætate sæpe glabro, albo; carne alba; lamellis subangustis, confertis, stipitem

*) Opportunitatis causa, dispositio systematica hic adhibita, eadem est ac illa ceterorum *Sylloges* voluminum, nec Tabularum præcedentium.

attingentibus, albis; stipite solido bulboso, floccoso-squamoso, albo; annulo apice stipitis affixo, sæpe ætate evanido, inferne floccoso-squamoso, superne striato; bulbo magno ovato, squamoso, immarginato, supra in stipitem attenuato, basi rotundato vel abrupte acutato; sporis ellipticis, $10\,^1/_2$–13 × 8.

Hab. in silvis in Alabama Amer. bor. (Underwood et Earle). — Pileus 8–16 cm. latus; stipes 7–13 cm. longus, 1–2 cm. crassus. *A. solitariæ* affinis, sed characteribus bulbi ac annuli præcipue recedit.

4. **Amanita magnivelaris** Peck, 50 Rep. p. 96 (1897). — Pileo convexo v. subplano, glabro, viscidulo, albo v. flavo-albo, margine levi; lamellis liberis, confertis, albis; stipite subæquali, longo, glabro, albo, annulo lato, membranaceo, albo prædito, basi volva membranacea adpressa laciniata cincto ibique bulboso-radicato; sporis late ellipsoideis, 10 × 7-8.

Hab. in silvis Port Jefferson, Suffolk county Amer. bor. — Solitaria; pileus 7-12 cm. lat.; stipes 12-17 cm. long., 8-12 mm. cr. Ab *A. verna* annulo latissimo persistente distinguitur.

5. **Amanita lutea** Otth apud Trog, Mittheil. Natur. Gesellsch. Bern. 1857, p. 27. — Pileo conico-explanato, 3-4 cm. lat., luteo v. ochraceo-luteo, margine leviter involuto, striatulo, medio papilloso, mucoso, plerumque squamis latiusculis consperso; carne alba, sub cute flava; stipite cylindraceo-obclavato, 7-8 cm. long., basi bulboso, fragili, subcavo, annulo tenui albo, volvaque membranacea ornato; lamellis albis, liberis, confertis, introrsum attenuatis.

Hab. in Bremgartenwald Helvetiæ (Otth).

AMANITOPSIS Roze — Syll. V, p. 20, IX, p. 2.

1. **Amanitopsis villosa** Peck, Bull. Torr. Bot. Club. 1895, p. 485. — 6
Pileo primo subgloboso, dein campanulato v. subplano, margine volvæ reliquias gerente, glabro, dein ad marginem sulcato-striato, alutaceo v. aurantiaco-alutaceo; carne alba; lamellis confertis, stipitem attingentibus, subventricosis, pallide cremeis; stipite firmo, primo tomentoso, apice attenuato, dein subæquali, albo v. albido; volva albida, tomentosa, crassa; sporis globosis, $10\,^1/_2$–13 . latis.

Hab. sub quercubus in California (Mc Clatchie). — Pileus 5–10 cm. latus; stipes 8–$10\,^1/_2$ cm. longus, 7–9 mm. crassus.

2. **Amanitopsis pusilla** Peck 50 Rep. p. 96 (1897). — Pileo tenui, 7
late convexo v. subplano, subglabro, leviter umbonato, pallide brunneo, margine levi; lamellis angustis, tenuibus, confertis, libe-

ris, demum brunneolis; stipite brevi, cavo, bulboso; bulbo volvæ membranaceæ residuis marginato; sporis late ellipsoideis, 5-6 × 4.

Hab. in graminosis, St. Lawrence County Amer. bor. (Mrs. Anthony). — Pileus 5 cm. lat.; stipes 16-26 mm. long., 2-4 mm. cr.

LEPIOTA Fr. — Syll. V, 27, IX, p. 3, XI, p. 2.

1. **Lepiota fusispora** P. Henn. Engl. Jahrb. XXIII, p. 556. — Pileo membranaceo-carnosulo, centro subumbonato, radiatim striatulo, brunneo, squamulis granulatis obscurioribus tecto, 1 1/2-3 1/2 cm. diam.; stipite tereti, gracili, levi glabroque, flavo, 3 1/2-6 1/2 cm. longo, 2-3 mm. crasso, annulo membranaceo; lamellis liberis, confertis, angustis, pallidis; sporis fusoideis, hyalinis, utrinque subacutis, guttulatis, 15-18 × 4-5. 8

Hab. in foliis putridis in Camerunia (Zenker).

2. **Lepiota Zenkeri** P. Henn. Engl. Jahrb. XXIII, p. 555. — Pileo carnosulo, primo subgloboso-ovoideo, dein campanulato, aurantiaco, vertice obscuriore, dense farinaceo et flocculis plumosis secedentibus squamoso, margine levi glabroque, usque ad 4-5 cm. diam.; stipite tereti, ad basim obclavato-incrassato, fistuloso, aurantiaco, granulis farinaceis citrinis dense vestito usque ad 20 cm. longo, 1-1 1/2 cm. crasso, basi usque ad 2 1/2 cm. crasso, levi, annulo secedente; lamellis liberis, confertis, latis, albis; sporis globosis v. subglobosis, 1-guttulatis, hyalinis, intus subgranulatis, 7-8 μ. diam. 9

Hab. in foliis deciduis in Camerunia (Zenker).

3. **Lepiota incarnata** Clem. Bot. Survey of Nebraska IV. Lincoln. 1896, p. 17. — Subcæspitosa; pileo tenui, subcarnoso, conico denique campanulato, raro convexo, parum sericeo, pallide incarnato, squamulis obscurioribus, margine striato; umbone distincto, dein atro; stipite solido, gracili, æquali, glabro, raro sericeo, pallido v. subrosaceo; annulo medio v. supero, fixo, erecto, albo; lamellis remotis, subdistantibus, vix ventricosis, albis; sporis minutis, ovato-ellipsoideis, uniguttulatis, apiculatis, 5-6 × 3. 10

Hab. ad terram inter folia in Nebraska Amer. bor. — Pileus 2-4 cm. lat., 1 1/2-3 alt.; stipes 3-6 cm. long., 2-5 mm. crassus.

4. **Lepiota rufo-granulata** P. Henn. Hedw. 1897, p. 209. — Pileo tenui, carnosulo, submembranaceo, campanulato-expanso, pallido, squamis rufobrunneis, punctiformibus, innatis tecto, ca. 2 cm. diametro; stipite fistuloso, levi glabroque, ca. 2 cm. longo, 1 1/2-2 cm. crasso, pallido, basi vix incrassato, annulo membranaceo secedente 11

albo; lamellis liberis, subconfertis, albis, lanceolatis; sporis subglobosis, hyalinis, basi apiculatis, 5-6 μ. longis.

Hab. ad lignum pr. Blumenau Brasiliæ (Möller.). — *Lepiotæ cristatæ* affinis.

5. **Lepiota imbricata** P. Henn. Hedw. 1895, p. 333. — Pileo carnoso, 12
ovato-campanulato, deinde explanato, umbonato, cute crassa in squamis imbricatis, rigidis, coriaceis persistentibus, tuberculatis, fusco-brunneis lacerata, 3-5 cm. diam.; stipite cavo, basi bulboso, pallido, levi, annulo mobili cartilagineo pallide fusco, usque ad 10 cm. longo, 1 cm. crasso; lamellis liberis, subconfertis, pallidis; carne subrubescente; sporis late ellipsoideis v. ovato-ellipsoideis, uniguttulatis, levibus, 13-15 × 8-10, episporio flavescente v. subincarnescente.

Hab. ad terram in Erythræa (Schweinfurth).

6. **Lepiota minuta** Vogl. Bull. Soc. bot. Ital. 1896, p. 41. — Pileo 13
carnosulo, levi, campanulato-expanso, viscoso, testaceo, 6-8 mm. lato; lamellis liberis, albis, confertissimis; sporis sphæroideis, hyalinis, 2-3 μ. latis; basidiis clavatis, 4-sterigmaticis; stipite æquali, levi, sicco, brunneolo, annulo angustissimo instructo, 12-18 mm. longo, 4 mm. lato.

Hab. ad terram, locis incultis in M. Generoso in finibus Italiæ et Helvetiæ.

7. **Lepiota denudata** Rabenh. Syll. V, p. 52. — Var. **varsoviensis** 14
Chelch. ap. Blonski Przyc. Fl. Grzgb. Polsk. 1896, p. 87. — Pileo sicco sulphureo, submembranaceo, campanulato-ovato dein expanso, persistenter farinaceo, nunquam nudo, disco pilei obscuriore; stipite nudo fistuloso, tenui, bulbilloso-elongato; annulo medio, tenero, persistente; lamellis liberis ventricosis sulphureis; sporis albidis, ovoideis, 5-6 × 4-5.

Hab. in calidariis et tepidariis horti botanici Varsoviensis Poloniæ. — Pileus $1^1/_2$-2 cm. latus; stipes 2-3 cm. longus, 2 mm. crassus.

8. **Lepiota mutata** Peck, Bull. Torr. Bot. Cl. XXIII, 1895, p. 411. 15
Pileo tenui, convexo, subumbonato, disco subscabro, albo, sicco disco brunneo; lamellis confertis, tenuibus, subventricosis, liberis, albis; stipite gracili, æquali, cavo, albo; annulo parvo, interdum evanido; sporis ellipticis, $8\text{-}10^1/_2$ × $5\text{-}6^1/_4$.

Hab. ad terram in silvis, Kansas Amer. bor. (Bartholomew). Pileus 2-4 cm. latus; stipes fere $2^1/_2$ cm. longus, 2-5 mm. crassus.

9. **Lepiota repanda** Clem. Bot. Survey of Nebraska IV, Lincoln. 16

1896, p. 18. — Pileo convexo-repando, carnoso, incarnato-ochraceo, distincte umbonato; squamis minutis, confertis, granulosis; stipite amœno, cavo, æquali, minute floccoso-farinoso, superne albo, inferne incarnato-ochraceo; annulo albo, supero; lamellis liberis, albis, ventricosis; sporis ellipsoideis v. globosis, 5–7 × 5.

Hab. ad terram humosam pr. Lincoln in Nebraska Amer. bor. — Pileus 13-18 mm. lat.; stipes 2–3 cm. long., 1–1 $^1/_2$ mm. lat. *L. cristatæ* Alb. et Schw. affinis.

10. **Lepiota carneo-annulata** Clem. Bot. Survey of Nebraska. IV, Lincoln 1896, p. 17. — Pileo campanulato, carnoso, estriato, cute incarnata dense fibrilloso-sericea, squamis adpressis granulosis atro-incarnatis tecto; umbone vix distincto, leniter depresso, lateritio-incarnato, tomentoso v. in squamulas minutas rupto; stipite albo fistuloso, nitido, sericeo, basi incrassato, sursum æquali; annulo fixo, albo, erecto, stipiti adpresso; limbo abrupte divergente, incarnato-marginato, 3 $^1/_2$ mm. lato; lamellis adnexis candidis, modice confertis; sporis hyalinis, 1–2-guttatis, fusoideo-ellipticis, apiculatis, 10-12 $^1/_2$ × 4–5. 17

Hab. ad terram umbrosam pluribus locis in Nebraska Amer. bor. — Pileus 3 cm. latus, 2 cm. altus; stipes 4 cm. longus, supra 5 mm. basi 1 cm. latus. *L. rhodocephalæ* affinis.

11. **Lepiota sulphurina** Clem. Bot. Survey of Nebraska. IV, Lincoln 1896, p. 18. — Pileo campanulato, dein convexo, subcarnoso, cute sulphurea sericea, in squamas confertas oblongas v. elongatas rupta, margine distincte striato-plicato, floccoso; umbone distincto, elevato, glabro v. vix rimoso, incarnato-lateritio; stipite pulcro, fistuloso, pruinoso, basi valde bulboso, luteo-floccoso, superne incrassato, nitido, isabellino; annulo supero, fixo, lacerato, sulphureo; lamellis adnexis, linearibus, confertis, albicantibus v. pallide stramineis; sporis ovato-ellipsoideis, uniguttulatis, 7–9 × 4–5. 18

Hab. ad terram in Nebraska Amer. bor. — Pileus 1 $^1/_2$–3 cm. lat.; stipes 4 cm. long., superne 3-4 mm. lat., inferne 6–7 mm.

12. **Lepiota mammæformis** Underw. Bull. Torr. Bot. Cl. 1897, p. 82. — Pileo tenui, albo, disco brunneolo valde umbonato, 5-8 cm. diam., farinoso-squamuloso, marginem versus sulcato-striato, interdum incurvo; lamellis angustis, modice confertis; stipite 12–18 cm. longo, flexuoso, cavo, basi incrassato, sursum angustato, circiter 1 cm. crasso; annulo angusto, distante, caduco. 19

Hab. ad basim trunci Broussonetiæ, Alabama Amer. bor.

13. **Lepiota aureo-violacea** P. Henn. Fungi camerun. I, in Engl. 20

Jahrb. XXII, 1895, p. 107. — Pileo convexo-explanato, vertice late obtuso-umbonato, atro-violaceo, radiato-striato, aurantiaco, granulis atro-violaceis farinosis tecto, 14–18 mm. diam.; stipite farcto, dein cavo, levi glabroque, basi vix incrassato, viridulo, annulo secedente, 2–2 $^1/_2$ mm. longo, 1 $^1/_2$–2 mm. crasso; lamellis liberis, confertis, lanceolatis, subflavescentibus; sporis ellipsoideis, basi oblique apiculatis, levibus, 1-guttulatis, hyalino-subflavescentibus, 4–5 × 3–4; basidiis clavatis.

Hab. ad ligna putrida, Kamerun (Zenker et Staudt).

14. **Lepiota camerunensis** P. Henn. Fungi camerun. I, in Engl. 21
Jahrb. XXII, 1895, p. 107. — Pileo ex ovoideo campanulato (dein explanato?), 2–2 $^1/_2$ cm. alto, carnoso, vix umbonato, albo, primo squamis membranaceis et squamulis farinaceis albidis tecto, dein levi et glabro, medio læte brunneo, granulato, margine obsolete striato; stipite fistuloso, glabro levique, albo v. fuscescenti, basi subbulboso, albo-farinaceo, 5–7 cm. alto, 3–4 mm. crasso; annulo mobili: lamellis liberis, latis, confertis, albis; sporis ovoideo-elongatis v. amygdaliformibus, oblique apiculatis, 1-guttulatis, hyalinis, 10–12 × 7–8.

Hab. ad terram, Kamerun (Duby).

15. **Lepiota sublilacea** Peck, Bull. Torr. Bot. Cl. 1897, p. 139. — 22
Pileo tenui convexo, obtuso v. umbonato, arido, floccoso-squamuloso, brunneolo, lilacino-tincto; carne alba; lamellis sublatis, liberis subdistantibus, albidis; stipite brevi solido, pileo concolori, sed apice pallidiori, annulo evanescente; sporis ellipticis, 10 $^1/_2$ × 5, vulgo nucleum solitarium magnum nitidum continentibus.

Hab. ad terram nudam in pratis, Kansas Amer. bor. (Bartholomew). — Pileus 1 $^1/_2$–2 $^1/_2$ cm. latus; stipes 1 $^1/_2$–2 $^1/_2$ cm. longus, 2–5 mm. crassus. *L. lilaceæ* affinis, a qua stipite solido et sporis majoribus sat distincta species.

16. **Lepiota Henningsii** Sacc. et Syd., *Lepiota bulbipes* P. Henn. Engl. 23
Jahrb. XXIII, p. 556, nec Mont. – Pileo membranaceo, campanulato-expanso, subfarinoso, levi, cretaceo, margine squamuloso, 2–5 cm. diam.; stipite fistuloso, subcurvato, levi glabro, basi bulboso-clavato, farcto, carnoso, usque ad 1 cm. incrassato, albo-flocculento, annulo membranaceo secedente in floccis margine vestito, circiter 8 cm. longo, 3 mm. crasso; lamellis liberis, confertis, latis, albis; sporis ellipsoideis v. subovoideis, basi apiculatis, hyalinis, 1-2-guttulatis, 8–10 × 5–7.

Hab. in ligno emortuo in Camerunia (Zenker). — *L. Schweinfurthii* et *L. cepæstipiti* affinis.

17. **Lepiota fulvodisca** Peck, Bull. Torr. Bot. Club. 1895. p. 198. — Pileo tenui, convexo v. subplano, obtuso v. umbonato, viscido, albo, umbone fulvo; lamellis angustis, densis, liberis, albis; stipite gracili, flexuoso, viscido, cavo, albo v. albido, basi abrupte bulboso; annulo tenui, membranaceo, candido; sporis ovato-ellipticis, $7\,^1/_2$-$10\,^1/_2 \times 4$-$5\,^1/_2$, plerumque nucleo nitido et apiculo minuto præditis. 24

Hab. ad terram inter folia in silvis, California (Mc Clatchie). — Pileus $2\,^1/_2$-4 cm. latus; stipes 5-8 cm. longus, $2\,^1/_4$-$3\,^1/_4$ mm. crassus.

18. **Lepiota megalotheles** Kalchbr. in Trans. Linn. Soc. N. S. W. 1882 p. 563 et in Mc. Alp. Arrang. Austral. Fungi, 1893, p. 30. — Carnosa, campanulata, levis, squamis brunneis adpressis vestita; stipite subcavo, basi incrassato, nudo, ex albo brunneo. 25

Hab. ad ripas fluviorum, Queensland Australiæ.

19. **Lepiota vestita** Otth apud Trog. Mittheil. Natur. Gesell. Bern. 1857 p. 28. — Pileo applanato, sæpe plus minus gibbo, 6 cm. lat., initio margine involuto et flocculoso-fibrilloso, pilis longis, persistentibus brunneo-rufis, fasciculatis, mollibus consperso; carne alba, molli; stipite 6 cm. longo, 6-7 mm. cr., squamulis rufo-brunneis consperso intus albo, e fibrilloso calvo; annulo e squamis formato, fibrilloso-laciniato; lamellis liberis, ventricosis, subconfertis, albis, dein flavidis. 26

Hab. in sabulosis pr. Heimbergbrücke Helvetiæ. — Odor sat fortis.

20. **Lepiota tepidaria** Otth ap. Trog, Mittheil. Natur. Gesell. Bern, 1857 p. 27. — Pileo campanulato, dein expanso, 4-6 cm. lat., rubro-brunneo, striatulo, cute in squamas granulosas lacerata, margine subinde eroso; carne tenui, initio alba, medio sub cute distincte flava; lamellis liberis, albis, basi flavidis, late ventricosis, confertis; stipite basi leviter incrassato, acute radicato, 7-10 cm. long., 7 mm. cr. albo, deorsum rufo-brunneo, fibrilloso; annulo membranaceo, pendulo, albido-brunneo. 27

Hab. in tepidariis horti bot. Bernensis. — Odor sat gravis.

21. **Lepiota Quéleti** Sacc. et Syd. Sic nominanda est *Lepiota littoralis* Quél. (1891) Sacc. Syll. XI, p. 6, ob homonymam *L. littoralis* Mén. (1889). 28

SCHULZERIA Bres. — Syll. IX, p. 72, XI, p. 7.

1. **Schulzeria septentrionalis** Karst. Hedw. 1896, pag. 43. — Pileo carnoso, molli, e convexo explanato, subumbonato, levi, glabro, 29

sicco, albido, c. 10 cm. lato; stipite centrali, æquali, basi bulbilloso, a pileo discreto, glabro, albido, c. 15 cm. alto; lamellis subconfertis, liberis, remotis, latis, albidis.

Hab. ad lignum vetustum in regione Jyväskylensi in Fennia (LINDROTH).

ARMILLARIA Fr. — Syll. V, p. 73 et IX, p. 11, XI, p. 7.

1. **Armillaria mellea** Vahl. Sacc. Syll. V, p. 80. — Var. **camerunensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 107. — Pileo carnosulo, convexo-explanato, $^1/_2$–1 cm. diam., rufo-brunneo, dense granulato vel verrucoso-squamoso, squamis parvis, atris, subconicis v. depressis, margine primo involuto, dein explanato, substriato; stipite farcto, 1–2 cm. longo, 2–3 mm. crasso, subsquamoso, substriato, læte brunneo, parte superiore annulo amplo, membranaceo-floccoso, albo patente; lamellis sinuoso-adnatis, vix decurrentibus, subconfertis, pallidis; sporis subglobosis, levibus, hyalinis, 7– 8 μ.; basidiis clavatis. 30

Hab. ad truncos putres, Kamerun (DUSÉN).

2. **Armillaria distans** Pat. Bull. Soc. Myc. de France. 1895, p. 85. — Pileo carnoso, plano v. convexo, orbiculari, brunneo-nigro, glabro, $^1/_2$–1$^1/_2$ cm. diam., margine involuto; stipite carnoso, tenaci, erecto v. obliquo, cylindraceo, albo, glabro, 1–3 cm. longo, 6 mm. crasso, medio annulum persistentem angustum crassum, integrum album, brunneo-marginatum efformante; lamellis decurrentibus, angustis, simplicibus, integris, haud confertis; cystidiis nullis. 31

Hab. ad truncos emortuos in regione Kongoana gallica (DYBOWSKI). Edulis.

3. **Armillaria appendiculata** Peck, Bull. Torr. Bot. Cl. 1897, p. 140. — Pileo late convexo, glabro, albido sæpe disco ferrugineo-vel brunneolo-ferrugineo; carne alba v. albida; lamellis confertis, postice rotundatis, albidis; stipite æquali v. sursum parum attenuato, solido, bulboso, albido; annulo membranaceo, albo, plerumque ad marginem pilei frustulatim adhærente; sporis subellipticis, 8 × 5$^1/_3$. 32

Hab. ad terram in Alabama Amer. bor. — Pileus 5-10$^1/_2$ cm. latus; stipes 4–9 cm. longus, 1–2$^1/_3$ cm. crassus. Aspectu externo omnino *Tricholomati albo,* sed velo præsente ad *Armillariam* locanda species.

4. **Armillaria roborosa** Britz. Hymen. Kunde I, 1895, p. 1, f. 658. — Pileo albo, fibroso-squamoso, squamis rubro-brunneis, margine fibroso-lanuginoso; carne alba, solida; lamellis albis, rotundatis, vix 33

emarginatis, crassis; stipite albo, fibroso-squamoso, squamis rubro-brunneis, supra annulum albo; sporis subasperis, non hyalinis, 6 × 4 1/2; odore nullo; sapore Raphani sativi.

Hab. in silvis coniferis in Bavaria.

TRICHOLOMA Fr. — Syll. V, p. 87, IX, p. 13, XI, p. 8.

Tricholoma lugubre Peck, 49 Rep. Stat. Bot. N. York. 1896, 34
p. 16. — Cæspitosum; pileo convexo, sæpe irregulari v. repando margineque lobato, glabro, hygrophano, fumoso-brunneo v. griseo-brunneo, margine involuto; carne alba; lamellis angustis tenuibus, confertis, subliberis, albidis; stipite brevi, glabro, solido, albo; sporis globosis, 6 1/3 *p.* latis.

Hab. ad terram sub truncis Tsugæ canadensis, New York Amer. bor. — Pileus 4–8 cm. latus; stipes 2 1/2–5 cm. longus, 1–1 1/3 cm. crassus.

2. **Tricholoma leucocephaloides** Peck, 49 Rep. Stat. Bot. N. York. 35
1896, p. 16. — Pileo tenui convexo, glabro, obtuso v. umbonato, udo hygrophano ac griseo-brunneo, sicco albo v. albido; carne alba; lamellis modice confertis, adnatis v. subemarginatis, albidis; stipite æquali v. sursum leviter angustato, glabro, interdum apice farinaceo, solido, albido; sporis ellipticis, 5–6 1/3 × 4; odore forti farinæ recentis.

Hab. ad terram sub Pinis, New York Amer. bor. — Pileus 4–7 cm. latus; stipes 4–7 cm. longus, 3/4–1 cm. crassus. *T. leucocephalo* affine.

3. **Tricholoma pallidum** Peck, Bull. Torr. Bot. Cl. 1897. p. 139. — 36
Pileo centro carnoso, marginem versus tenui, convexo v. subplano, obtuso, glabro, interdum discum versus squamulis tenuibus adpressis brunneolis adsperso, subnitido, albido, luteo-vel brunneolo-tincto, carne alba, fracta plus minus carnea; lamellis latis subdistantibus, postice rotundatis v. adnexis, acie sæpe erosis, albis; stipite æquali v. basi subincrassato, glabro, albo; sporis ellipticis, 5–6 1/2 × 4; sapore miti.

Hab. in silvis, Massachusetts Amer. bor. — Pileus 2 1/2–5 cm. longus, 3/4–1 1/3 cm. crassus.

4. **Tricholoma acre** Peck, Bull. Torr. Bot. Cl. 1897, p. 139. — Pileo 37
carnoso, subtenui, late convexo, subplano v. etiam centro subdepresso, sæpe margine undulato, sicco, innato-fibrilloso, albido v. pallide griseo; carne alba v. albida; lamellis confertis, adnexis, subventricosis, albis; stipite æquali v. deorsum parum angustato,

brevi, subfibrilloso, farcto v. cavo, albo; sporis subglobosis, 5–6 1/2 × 4–5; sapore acri.

Hab. in silvis, Massachusetts Amer. bor. — Pileus 4–6 1/2 cm. latus; stipes 2 1/2–5 cm. longus, 1/2–1 1/3 cm. crassus. Species *T. impolito* proxima.

5. **Tricholoma immarcescens** Britz. Hymen. Kunde II, 1896, p. 2, fig. 397 et 718. — Pileo glabro, hygrophano, brunneo vel griseo-brunneo, margine dilutiore; lamellis confertissimis, albescentibus vel brunneolis; stipite brunneolo; sporis albis, 6–8 × 4–5. 38

Hab. ad truncos putridos populeos in Bavaria.

6. **Tricholoma tumefactum** Britz. Hymen. Kunde II, 1896, p. 2, fig. 164. — Pileo albido, centro luteolo; lamellis hygrophanis, numerosis, subcrassis, albis v. albescentibus; carne alba firma; stipite albo; sporis albis, 6–8 × 4, in cumulo albis vel dilutissime roseolis; odore nullo. 39

Hab. ad terram in alpibus Bavaricis.

7. **Tricholoma lutescenti-album** Britz. Hymen. Kunde II, 1896, p. 1, fig. 714. — Pileo luteo vel lutescenti-albo, glutinoso; lamellis subconfertis, albis vel albescentibus; stipite albo, subdiaphano; sporis albis, 5–8 × 3–4. 40

Hab. in silvaticis in Bavaria.

8. **Tricholoma semivestitum** Peck, Bull. Torr. Bot. Club. 1895, p. 485. — Pileo tenui, expanso, centro depresso v. subumbilicato, glabro, nigro-brunneo, margine recurvato v. involuto; lamellis densis, emarginatis, acie sæpe dentatis v. erosis, albidis v. albido-cœruleis; stipite curto, solido, basim versus plerumque leviter incrassato, brunneo, deorsum tomentoso; sporis late ellipticis v. subglobosis, 1-nucleatis, 4–5 1/2 × 4. 41

Hab. in pascuis arenosis ad radices graminum, Kansas Amer. bor. (Bartholomew). — Pileus 13–27 mm. latus; stipes 18–27 mm. longus, 5–7 mm. crassus.

9. **Tricholoma lentum** Post, Bot. Notis. 1895, p. 65., Romell, Fg. exs. n. 101. — Totum album, tactu haud maculatum, siccum impolitum, initio fere vellereum, sublentum, sapore miti, odore debili; pileo carnoso, convexo, 2–6 cm. lato, disco demum in pallidum vergente; stipite deorsum attenuato, circa apicem vulgo (ob lamellas decurrentes) longitudinaliter costato; lamellis firmis, haud decolorantibus, nunc leviter sinuatis, dente decurrente, nunc Clitocybarum more vere decurrentibus; sporis pure albis, levibus, ellipsoideis v. obovatis, basi sæpe oblique apiculatis, 7 1/2–10 × 4 1/2–7 42

uniguttulatis; basidiis 4-sporis, clavatis, 40–50 × 8; cystidiis nullis.

Hab. ad acus putrescentes Abietis excelsæ in Suecia. — Hæc species valde distincta, licet quoad lamellas inter Tricholomata et Clitocybas vacillans, in pluribus locis Sueciæ frequenter occurrit. *Tr. album* Fr. pro parte huc spectare videtur, licet forma in Icon. sel. tab. 43, fig. 1 depicta valde diversa.

10. **Tricholoma sanguineo-album** Britz. Hymen. Kunde I, 1895, p. 1, 43
fig. 662. — Pileo albido, subviscido, longitudinaliter maculato fibrosoque, maculis fibrisque sanguineis, margine subtomentoso, involuto; carne alba; lamellis confertissimis, mollibus, albis vel isabellino-albidis; sporis hyalinis, 6 × 4.

Hab. ad sepes in Bavaria.

11. **Tricholoma angustifolium** Britz. Hymen. Kunde I, 1895, p. 1, 44
fig. 665. — Pileo albo, centro brunneo-carneo; carne alba; stipite albo; lamellis albidis, angustis; sporis 10 × 6.

Hab. in silvis pineis in Bavaria.

12. **Tricholoma convexo-planum** Britz. Hymen. Kunde. I, 1895, p. 2, 45
fig. 666. — Pileo pallide carneo-albido, centro isabellino-rubro; carne albida; lamellis angustis, albidis vel carneo-albidis; stipite albo vix isabellino; sporis 10 × 6.

Hab. in silvis coniferis in Bavaria.

13. **Tricholoma cremeo-griseum** Britz. Hymen. Kunde. I, 1895, p. 2, 46
fig. 670. — Pileo hygrophano, luteo-griseo vel fusco-luteo; carne griseo-luteo-albida, spongiosa; lamellis confertis, albidis vel griseo-luteo-albidis, ceraceis; stipite albido, fibroso; sporis 6 ½ × 3; odore nullo.

Hab. in silvis Bavariæ.

14. **Tricholoma albellospermum** Britz. Hymen. Kunde III, 1897, 47
p. 2, fig. 756. — Pileo glabro, luteo-brunneo; lamellis confertis, albidis, dein pallidissime brunneolo-albidis; stipite brunneo, albido-fibroso; sporis albidis, 8 × 4, in cumulo subochroleucis; odore nullo.

Hab. in quercetis in Bavaria.

15. **Tricholoma mucronatum** Pat. Cat. rais. pl. cell. Tunisie. 1897, 48
p. 22. — Pileo carnoso, convexo, plus minus repando-sinuato, acute mucronato, pallide livido, glabro, 2–3 cm. lato, margine involuto; stipite farcto, carnoso, 1–2 cm. alto, 4–6 mm. crasso, glabro, albido; lamellis confertissimis, strictis, sinuato-adnexis, albidis; basidiis clavatis, 4-sterigmaticis, minutis; sporis hyalinis, ovoideis, levibus, 5 × 4 μ. Odor farinæ recentis.

Hab. in ligno putrido Quercus Suberis in Tunisia.

16. **Tricholoma turbinipes** Kalchbr. Trans. Linn. Soc. N. S. W. 1882 p. 639 et in Mc. Alp. Arrang. Austral. Fungi 1893, p. 30. — Magnum, pallide rubescens, carnosum, inæqualiter convexum; stipité turbinato, crasso. 49

Hab. ad terram in Australia occident.

17. **Tricholoma plagiotum** Kalchbr. in Trans. Linn. Soc. N. S. W. 1882 p. 639 et in Mc. Alp. Arrang. Austral Fungi, 1893, p. 30. — Carnosum, planum, depressum, glabrum, pallide rubido-brunneum; stipite excentrico, farcto, cylindrico, basi leviter incrassato. 50

Hab. ad terram in Australia occident.

18. **Tricholoma carneo-flavidum** Kalchbr. Trans. Linn. Soc. N. S. W. 1882 p. 639 in Mc. Alp. Arrang. Austral. Fungi, 1893, p. 3. — Carnosum, hemisphæricum, villoso-squamosum, carneo-flavidum, h. e. colore persicino; stipite solido, crasso, concolore. 51

Hab. ad terram in Australia occident.

CLITOCYBE Fr. — Syll. V, p. 141 IX, p. 18, XI, p. 13.

1. **Clitocybe pusilla** Peck, Bull. Torr. Bot. Club. 1896, p. 199. — Pileo ex hemisphærico v. convexo subplano, obtuso, interdum minutissime umbonato, pruinoso, griseolo; carne tenui, albida; lamellis angustis, confertis, adnatis v. decurrentibus, albis; stipite brevi, solido, pruinoso, griseolo; sporis subglobosis v. latissime ellipticis, 4–5 $^1/_4$ μ. longis. 52

Hab. gregaria v. subcæspitosa ad terram, California (Mc. Clatchie). — Pileus 7–18 mm. latus; stipes circiter 14 mm. longus, vix 2 $^1/_4$ mm. crassus.

2. **Clitocybe rhodoleuca** Rom. Bot. Notis. 1895 p. 66. — Carnosa, glabrescens, jove sicco, lamellis roseis v. incarnato-pallidis exceptis, tota amœne alba, tempestate autem pluvia tota (extus intusque) amœne roseola, lamellis intensius roseis vel incarnatis, statura Cl. Orcellæ vel Cl. Prunuli, sapore miti, odore debili; pileo obconico, superne convexo vel demum fere applanato, rarissime aliquantulum concavo, 2-8 cm. diam.; stipite conico vel a basi crassa fere cylindrico, 2–4 cm. alto, 0,5–2 cm. crasso, lamellis subconfertis, angustis, 1–5 mm., nonnullis farctis; sporis in cumulo albis, sub microscopio hyalinis, leviter scabris, obovatis, basi apiculata. 6–9 × 5–6 $^1/_2$; basidiis 4-sporis, clavatis, 30–46 × 8–9; cystidiis nullis. 53

Hab. ad acus Abietis excelsæ in Suecia.

3. **Clitocybe tarda** Peck, Bull. Torr. Bot. Cl. 1897. p. 140. — Pileo 54

carnoso, sed tenui, ætate mox lacerato, convexo dein subplano v. centro subdepresso, interdum subumbonato, glabro, hygrophano, udo brunneo, sicco griseolo v. griseolo-brunneo, margine initio deflexo v. incurvo; lamellis subhorizontalibus, modice confertis, fragilibus, adnatis v. leniter decurrentibus, sæpe acie erosis, initio pallide violaceo-tinctis, demum albidis; stipite brevi, æquali v. deorsum attenuato, solido, fibrilloso, pileo concolori; sporis ellipticis, 8 × 4; carne alba, inodora.

Hab. in calidariis in Massachusetts Amer. bor. — Pileus 2 1/2–8 cm. latus; stipes 2 1/2 cm. longus, 2–7 mm. crassus. — Var. **pallidior** Peck l. c. Pileo pallidiore, fragiliore, irregulari, centro magis depresso, sicco, margine substriato, interdum excentrico; lamellis in juventute carneo-tinctis. Eodem loco in Massachusetts.

4. **Clitocybe ceraceo-lamellata** Britz. Hymen. Kunde I, 1895, p. 2. 55
fig. 572. — Pileo gilvo vel brunneo-ochraceo, margine albido, nitido; lamellis confertissimis, angustis, ceraceis, gilvis vel ochraceis; stipite fibris albis adnatis, pileo concolori; sporis 4 × 2,3 subluteolis in cumulo albis; odore nullo.

Hab. in silvis in Bavaria austr.

5. **Clitocybe fusco-aiutacea** Britz. Hymen. Kunde I, 1895, p. 2, 56
fig. 676. — Pileo glabro vix fibroso, fusco-luteo, centro fusco; carne albida, sub cuticula brunneola; lamellis confertissimis, albidis vel cremeo-albidis; sporis 10 × 5,6, in cumulo albis.

Hab. in silvis in Bavaria.

6. **Clitocybe subflexuosa** Britz. Hymen. Kunde I, 1895, p. 3, f. 683. 57
— Pileo gilvo-ochraceo; lamellis subconfertis, subcrassis, ochroleucis, sæpe undulatulis; stipite pileo concolori, sporis 8 × 3, in cumulo albis; odore nullo.

Hab. in silvis montanis in Bavaria.

7. **Clitocybe robusta** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 17. 58
— Pileo crasso, firmo, e plano-convexo centro depresso, glabro, albo margine initio involuto v. recurvato; carne alba; lamellis angustis confertis, decurrentibus, albidis; stipite brevi, valido, solido, glabro, æquali v. sursum parum angustato, basi sæpe bulboso, albo; sporis ellipticis, 7 3/4 × 4-5 1/4.

Hab. in silvis inter folia dejecta, New York Amer. bor. — Pileus 8–11 cm. latus; stipes 2 1/2-5 cm. longus, 2–2 1/2 cm. crassus. *Clit. candidæ* valde affinis.

8. **Clitocybe subsocialis** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 59
p. 411. — Pileo carnoso, convexo, demum centro subdepresso,

minute squamuloso, pallide luteo-brunneo v. subrufescente; carne alba; lamellis subdistantibus, albis, decurrentibus, interstitiis venosis; stipite æquali, solido, colore pilei, basi tomento albo mycelioideo; sporis subellipticis, 6-8 × 4-5 1/4, uno apice subapiculatis, plerumque nucleo nitido præditis; odore et sapore nauseoso.

Hab. ad terram in graminosis, Washington Amer. bor. — Pileus 1 1/2-4 cm. latus; stipes 2-5 cm. longus, 2-4 1/2 mm. crassus. E vicinia *Clitocybes socialis, Cl. sinopicæ* et *Cl. infundibuliformis,* sed cum nulla harum apte conjungenda.

9. **Clitocybe verruculosa** De Seyn. Champ. Congo fr. 1897, I, p. 7, tab. III, fig. 8-10. — Pileo globuloso, verruculoso, rubro, margine involuto, 7 mm. alto, 5 mm. crasso; stipite brevi, levi, tenaci, griseo, deorsum fulvescente, fere cavo, 12 mm. alto, 1 1/2 mm. crasso; lamellis arcuatis, adnatis, crassis, paucis, ter aut quater dimidiis, violascentibus; hymenio sterili; cystidiis fusiformibus exsertis. 60

Hab. pr. Diélé in regione Kongolana gallica.

10. **Clitocybe Allegreti** De Seyn. Rech. Champ. Congo fr. 1897, p. 7, tab. II, fig. 21-24. — Pileo umbonato, striato, versus marginem undulatum membranaceo, roseo isabellino pallescente, 3 cm. lato; stipite recto, basi incurvo, levi, cavo, fulvogriseo, 8 cm. alto, 4 mm. lato; lamellis albis, parum adnatis, sinuosis, antice attenuatis remotis, interstitiis levibus; hymenio homogeneo; sporis non visis. 61

Hab. ad truncos vetustos pr. Talagonga in regione Kongolana gallica.

11. **Clitocybe megalospora** Clem. Bot. Survey of Nebraska, IV, Lincoln 1896, p. 18. — Pileo plano-convexo, subcarnoso, levi, glabro, luteo-ochraceo, centro pallidiore, margine tenui; stipite fistuloso, glabro, albescente; lamellis albis, distantibus, breviter decurrentibus, pallide luteis; sporis magnis, hyalinis, ovoideis v. sublimoniiformibus, 17-18 × 10-12, nucleo magno 10 μ. diam. præditis. 62

Hab. ad terram pr. Saltillo in Nebraska Amer. bor. — Pileus 3 cm. latus; stipes 7 cm. longus, 2 mm. crassus.

12. **Clitocybe flavidifolia** Britz. Hymen. Kunde III, 1897, p. 2, fig. 859. — Pileo brunneo v. griseo-brunneo, margine pallidiore, fibroso; lamellis confertis, angustis, albis v. luteolis v. melleo-albis; stipite brunneolo-albo, sæpe compresso v. vesicario, albo-fibroso; sporis luteolis, 8-9 × 4, in cumulo albis; odore nullo. 63

Hab. in pinetis in Bavaria.

13. **Clitocybe guarapiensis** Sacc. et Syd. Sic nominanda est *Clitocybe* 64

Balansæ Speg. in Sacc. Syll. IX, p. 22, quum exstet anterior *C. Balansæ* Speg. Sacc. Syll. V, p. 180.

14. **Clitocybe pergamena** Cke. Illustr. Hymen. tab. 643, Handb. Brit. Fungi, II ed. p. 52. — Cæspitosa, pergameneo-albida, subcartilaginea; pileo convexo, dein plano obtuse umbonato, glabro, levi; stipite æquali, adscendente, solido, cartilagineo, apice punctato-squamoso; lamellis late adnatis, denticulo decurrente, satis confertis, albis. 65

Hab. ad truncos putres in Britannia. — Pileus 4-5 cm. lat.; stipes 10-12 cm. long.

COLLYBIA Fr. — Syll. V, p. 200, IX, p. 27, XI, p. 17.

1. **Collybia luxurians** Peck, Bull. Torr. Bot. Cl. 1897, p. 141. — Pileo tenui, convexo v. subcampanulato, sæpe irregulari, obtuso v. umbonato, glabro, udo, hygrophano, brunneo, margine lobato striatoque; lamellis angustis, confertis, albidis; stipitibus cæspitosis æqualibus flexuosis, cavis, brunneis, villo griseolo minuto undique pulverulentis, sæpe basim versus tomentosis; sporis ellipticis, 6 $^1/_2$-8 × 4. 66

Hab. ad terram in Alabama Amer. bor. (Underwood). — Pileus 5–10 $^1/_2$ cm. latus; stipes 8–16 $^1/_2$ cm. longus, 4–7 mm. crassus. Species cæspitosa, luxurians, verisimiliter *C. confluenti* affinis.

2. **Collybia albipileata** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 49. *Agaricus conigenoides* Ell. Rep. 30, p. 39. — Pileo tenui, convexo v. subplano, centro interdum leniter depresso, vulgo pilis brevibus hyalinis v. albidis pubescente, brunneo; lamellis latis, confertis, adnexis, acie minute pilosis, albis; stipite gracili, cavo, pallido, pilis sparsis albidis tenue pubescente, fere pulverulento, basi fibrilloso radicato; sporis minutis, ellipticis, 4–5 × 2 $^1/_2$-3. 67

Hab. ad conos Pini, Albany Amer. bor.

3. **Collybia arborescens** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 106. — Pileo membranaceo-carnosulo, campanulato, obtuso, margine substriato, levi glabroque, tenaci, albido, 1–1 $^1/_2$ cm. lato; stipite fasciato-compresso, ramosissimo, fistuloso, lateritio-griseo-tomentoso, usque ad 17 cm. longo, basi ca. 1 cm. lato-compresso sulcato, stipitibus singularibus compressis, 1–2 mm. crassis; lamellis adnatis decurrentibus, confertis, pallidis, flavescentibus, angustis; sporis subglobosis, hyalinis, 7–9 μ. 68

Hab. ad terram graminosam, Kamerun. (Zenker et Staudt). *C. confluenti* Pers. valde affinis.

4. **Collybia albogrisea** Peck, Bull. Torr. Bot. Club. 1895, p. 199. 69
— Pileo carnoso, convexo v. subplano, margine interdum subirregulari, glabro, albo v. griseo; carne alba; lamellis latis, distantibus adnatis, albis v. albidis; stipite subæquali, cavo, interdum tortuoso, albido v. griseo, deorsum tomento denso albido, griseo v. luteolo tecto, sursum nudo v. albo-pruinoso; sporis late ellipticis, 5 1/4-6 × 4, plerumque nucleo nitente præditis.

Hab. subcæspitosa inter folia dejecta; California (Mc Clatchie). Pileus circiter 2 1/2-3 cm. latus; stipes 3-5 1/2 cm. longus, 2-4 1/2 mm. crassus.

5. **Collybia Oronga** De Seyn. Rech. Champ. Congo fr. 1897, I, p. 4, 70
tab. II, fig. 1-3 et in Bull. Soc. Mycol. de France 1896, p. 53. — Pileo orbiculari, plano, depresso, centro acute prominente, carnoso, membranaceo, umbrino griseo-isabellino, 7-8 cm. lato, margine undulato; stipite elongato, recto, sursum attenuato, subfibrilloso, farcto, umbrino-pallido basi albescente, 8-10 cm. alto; lamellis latis, crassis, leviter distantibus subliberis, postice et antice rotundatis, acie crenulatis, griseo-albis; basidiis ovoideis, basi attenuatis, sterigmatibus brevioribus; sporis hyalinis, levibus, 7 × 4, ovoideis; cystidiis paucis subsporiferis. — Edulis.

Hab. ad terram pr. Talagonga in regione Kongolana gallica.

6. **Collybia aggregata** P. Henn. in litt. syn. *Collybia gregaria* P. 71
Henn. Hedw. 1897, p. 209 nec Blonski. — Pileo subcarnosulo, explanato, subapplanato, vix umbilicato, levi, glabro v. subpruinoso, cinereo-brunneolo, pallescente, 3-5 mm. diam.; stipite fistuloso, tenaci, subfarinoso-pruinoso, pallido, basi bulboso-incrassato, 8-14 mm. longo, 1-2 mm. crasso; lamellis confertis, adnatis, inæquilongis, angustis, pallidis; sporis globosis, levibus, 3 1/2-4 1/2, hyalinis; basidiis clavatis.

Hab. ad cortices truncorum gregatim pr. Rio de Janeiro Brasiliæ (Glaziou). — *Collybiæ conigenæ* Pers. affinis, sed lamellis sporisque diversa.

7. **Collybia Anombè** De Seyn. Rech. Champ. Congo fr. 1897, I, p. 5, 72
tab. II, f. 13-15 et in Bull. Soc. Mycol. de France, 1896, p. 54. — Stipite farcto, recto aut basi incurvo, griseo-albescente 2 1/2-6 1/2 cm. alto; pileo umbonato, subdepresso, centro acute prominente, carnoso, membranaceo, margine vix striatulo, griseo-murino umbrino, 2-3 cm. lato; lamellis latis crassis, leviter distantibus subliberis, postice et antice rotundatis, acie crenulatis, sordescentibus; hymenio et sporis ut in *C. Oronga*. — Edulis.

Hab. ad terram pr. Talagonga in regione Kongolana gallica.

8. **Collybia trabea** Britz. Hymen. Kunde, III, 1897, p. 3, fig. 761. — Pileo glabro, viscido, luteo; carne alba, basi stipitis luteola; lamellis distantibus, albidis v. luteolis; stipite sursum pallido, ochroleuco, deorsum obscuro, rubiginoso et tenuiore, sæpe arcuato, farcto; sporis albis, 10 × 4. 73

Hab. in ligno putrescenti in Bavaria.

9. **Collybia nivosula** Berk. Cuban Fungi III; Cooke, Handb. Austral. Fungi, 1892, p. 21. — Pileo convexo, dein applanato, 2 cm. lato, glabro, tenui, albido; stipite gracili, glabro, solido, æquali v. sursum leviter incrassato, albo, 3 cm. longo, 2 mm. crasso, basi tomento mycelioideo vestito; lamellis angustis, confertis, rotundatis, stipitem vix attingentibus, albis; sporis minutis, 3 × 2. 74

Hab. ad ramos putres in Victoria Australiæ.

10. **Collybia microspora** Peck, Bull. Torr. Bot. Club. 1895, p. 486. — Pileo tenui, convexo, subumbonato, glabro, albo; lamellis latis, subdistantibus, subplanis, albis, siccis brunneis; stipite gracili, cavo, glabro, albo, sicco brunneo; sporis minutis, late ellipticis, 4 × 3 1/4. 75

Hab. ad terram umbrosam, Kansas-Amer. bor. (Bartholomew). — Pileus circiter 1 1/3 cm. latus; stipes fere 2 1/3–3 cm. longus, 2–3 mm. crassus.

11. **Collybia Zenkeri** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII. 1895, p. 106. — Pileo convexo-explanato, radiatim striato sulcatoque, violaceo-fuscidulo, dense punctato-granulato, granis obscurioribus, 2–2 1/2 cm. diam., margine sæpe repando; stipite curvato, farcto, tenaci, tereti, levi glabroque, pallido-carnescenti, basi reticulato, tomentosulo, 1 1/2–2 cm. longo, 2 mm. crasso; lamellis sinuoso-affixis, latis ventricosis, distantibus, inæqualibus, pallidis subcarnescentibus; sporis subglobosis v. late ellipsoideis, 1-guttulatis, levibus, hyalinis, 5 1/2–6 × 5–6 μ. 76

Hab. ad truncos putres Kamerun. (Zenker et Staudt).

12. **Collybia conigena** Pers.-Sacc. Syll. V, p. 223. — forma **lutea** Vogl. Bull. Soc. Bot. Ital. 1896, p. 42. — Pileo planiusculo, carnoso, glabro luteo, 12–14 mm. lato; lamellis confertissimis, linearibus, candidis; sporis ellipsoideis, hyalinis, 4 × 2; basidiis clavatis, 4-sterigmaticis, 12-16 × 4-6; stipite cylindrico, tenaci, luteo, 3-4 cm. longo, 2–3 mm. crasso. 77

Hab. ad cones Pini pr. Lugano in Helvetia italica.

13. **Collybia discipes** Clem. Bot. Survey of Nebraska IV, Lincoln. 1896, p. 19. — Pileo convexo, denique explanato, subcarnoso, 78

glabro, margine striato, griseolo; umbone lato, obscuriore, griseo-brunneo; stipite cartilagineo, solido, glabro, nitido, albo, e basi hypogæa disciformi adscendente; lamellis liberis, remotis, confertis, ventricosis, 4–6 mm. latis, pallide ochraceis; cystidiis cyathiformibus v. interdum lageniformibus, apice 2–3 cuspidatis, 45–53 μ. longis, basi 20 μ., apice 10 μ. latis; sporis ellipsoideis v. ovatis, intus granulosis, 5–6 ≈ 3–4.

Hab. ad terram in Nebraska Amer. bor. — Pileus 5 cm. latus stipes $3^1/_2$ cm. longus, 5 mm. crassus.

14. **Collybia Reineckeana** P. Henn. in Engl. Jahrb. XXIII, 1896, 79
p. 284. — Pileo carnoso, compacto, subhemisphærico, obtuso, umbonato, striato, levi, margine primo involuto, pallide subalutaceo, 3–6 cm. diam.; carne pallida; stipite subtereti, farcto, striato, subconcolore, usque ad 15 cm. longo, $1–1^1/_2$ cm. crasso; lamellis postice rotundato-adnexis, angustis, medio subventricosis, subconfertis; basidiis clavatis; sporis subglobosis v. late ellipsoideis, hyalino-subflavescentibus, $4^1/_2–5$ ≈ 4–5.

Hab. in terra cæspitans in ins. Upolu ins. samoëns (Reinekke).

15. **Collybia velutina** Clem. Bot. Survey of Nebraska IV, Lincoln 80
1896, p. 19. — Pileo convexo v. plano, carnoso-cartilagineo, levi, rubro-castaneo, tomento denso fulvo-brunneo tecto; stipite fistuloso, cartilagineo, æquali, dense fulvo-ochraceo-tomentoso; lamellis adnexis, angustis, inæqualibus, confertis, ochraceis; sporis ellipsoideis, 7–8 ≈ 5.

Hab. in ligno putrido, Nebraska Amer. bor. — Pileus 1–3 cm. latus; stipes 3–5 cm. longus, $1^1/_2–3$ mm. crassus.

16. **Collybia velutipes** Curt. Syll. V, p. 212 var. **pusilla** Trog, Mit- 81
theil. nat. Gesell. Bern. 1857, p. 30. — A typo differt statura multo minore; pileo 8 mm. lat., viscidulo, læte brunneo; stipite 2-2,5 cm. long., atro-castaneo-brunneo, velutino; lamellis adnexis, nonnullis fere decurrentibus, ventricosis, remotis, flavis.

Hab. ad lignum putre Fagi in Helvetia.

17. **Collybia serpentina** Otth apud Trog, Mittheil. Nat. Gesellsch. Bern. 82
1857, p. 29. — Pileo crassiusculo convexo-campanulato, 5 cm. lat., albo-flavido, glabro, nitidulo, sicco, intus albo, margine involuto, albido-fibrilloso; stipite albido, 12 cm. long., 12 mm. cr. cartilagineo, striato, sericeo-splendente, cavo, in radicem serpentinam contortam desinente, mycelioque foliis adhærente; lamellis linearibus, crebris, fragilibus vix 3 mm. latis, crenulatis, albidis, rubidisque.

Hab. inter folia dejecta pr. Bern Helvetiæ. — Affinis *C. maculatæ.*

18. **Collybia nigrodisca** Peck, 50 Rep. p. 98 (1897). — Pileo tenui 83
convexo, glabro albido v. fumoso-albido, disco brunneo v. nigricante; carne alba; lamellis latiusculis, subdistantibus, rotundatis, adnexis, albidis; stipite æquali, cavo, pruinoso, levi v. striatulo, albido; sporis subellipticis, 6-7 × 4.

Hab. in arenosis Suffolk county Amer. bor. — Pileus 3-4 cm. lat.; stipes 3-4 cm. long., 4 mm. cr. — Habitus fere *Marasmii* Oreadis.

19. **Collybia uniformis** Peck, 50 Rep. p. 98. — Pileo tenui, hemisphæ- 84
rico v. convexo, glabro, hygrophano, udo griseo-brunneo, sicco pallidiore, margine levi, initio involuto v. incurvo; lamellis angustis, crebris, rotundatis, subliberis, albidis; stipite æquali, glabro v. subpruinoso, cavo, griseo-brunneo, basi tomento mycelioideo parce vestitis, sporis minutis, subglobosis, 3-4 μ diam.

Hab. inter muscos ad lignum putre, Saramac Lake Amer. bor. *C. acervatæ* affinis, cæspitosa; pileus 6-12 mm. lat.; stipes 2-3 cm. long., 2 mm. cr.

20. **Collybia umbrina** Clem. Bot. Survey of Nebraska IV, Lincoln 85
1896, p. 19. — Pileo convexo, carnoso, umbonato, brunneo, glabro, estriato, viscido, atro lineolato-adsperso; umbone atro; stipite longissimo, superne attenuato, carnoso, solido, albo, inferne fuscescente; lamellis adnatis, latis distantibusque, inæqualibus, albis; sporis irregulariter limoniiformibus, 17-18 × 12 13, aculeatis, nucleo 10 μ diam. præditis.

Hab. in ramis putridis, Nebraska Amer. bor. — Pileus 4 cm. latus; stipes 25 cm. longus, superne 5 mm., inferne 10 mm. crassus. An varietas *Collybiæ radicatæ* Relh?

21. **Collybia niveo-lutescens** (Viv.) Cke. in litt., *Agar. niveo-lutescens* 86
Viviani Fung. Ital. p. 64, t. 52. — Candida; pileo primum ovato, dein campanulato, hemisphærico, tandem planescente, depressoque, margine sulcato papilloso; carne mox extenuata; lamellis late sejunctis a stipite; hoc nudo elongato, cavo, in bulbum ovatum incrassato; pileo lamellisque per ætatem in ochraceo-lutescentem vergentibus.

Hab. in Italia bor. — Dense cæspitosa.

22. **Collybia Patouillardi** Sacc. et Syd. Sic nominanda est *Collybia rho-* 87
della Pat. Sacc. Syll. V, p. 233, quum exstet anterior *C. rhodella* Berk.

MYCENA Fr. — Syll. V, p. 251, IX, p. 34, XI, p. 20.

1. **Mycena substannea** P. Henn. Engl. Jahrb. XXIII, p. 555. — Pileo membranaceo, campanulato-expanso, radiatim striato subsulcato, pallide cinereo, vertice brunneolo, 4–13 mm. diam.; stipite gracili, tenui, fistuloso, pallido, levi glabroque, nitenti, $2^1/_2$–$3^1/_2$ cm. longo, 1 mm. crasso, basi incrassato subdisciformi, cinereo; lamellis adnatis, subdecurrentibus, haud confertis, pallidis; sporis ellipsoideis, levibus, hyalinis, $3^1/_2$–4 × 3–4; basidiis clavatis.

   Hab. in ligno et foliis deciduis in Camerunia (Zenker). — *M. vitreæ* Fr. et *M. stanneæ* Fr. affinis.

2. **Mycena oxyspora** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 30. — Pileo membranaceo, tenui, campanulato, convexo, candido, pruinoso, margine striato, disco demum depresso; stipite albo, filiformi, tenaci, undique villoso; lamellis adnato-decurrentibus, strictis, albis, confertis; sporis ovato-globosis, inferne abrupte attenuatis, hyalinis, guttulatis, 5–6 μ. diam.

   Hab. in ligno putrido in Tunisia. — Pileus 3–8 mm. latus; stipes 1–2 cm. longus, 1 mm. crassus.

3. **Mycena pseudo-galericulata** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 31. — Pileo membranaceo, conico, campanulato, acute umbonato, sicco glabro, vix striato, pallide fusco, plus minus violaceo-tincto; stipite rigido, tenaci, tubuloso, levi, glabro, inferne hirsuto, non radiato, exsucco, rufo-violaceo; lamellis uncinato-adnatis, albidis, margine vinosis; sporis hyalinis, ovoideis, 10–12 × 5.

   Hab. in truncis putridis Quercus Suberis in Tunisia.— Pileus 2 cm. latus, 15 mm. altus; stipes 5–8 cm. longus, 2–3 mm. crassus; sparsa vel cæspitosa.

4. **Mycena ventricoso-lamellata** Britz. Hymen. Kunde I, 1895, p. 3, fig. 692. — Pileo griseo-fusco, centro obscuriore, fragili; lamellis confertis, ventricosis, ferrugineo-griseis; stipite fusco vel violaceo-fusco; sporis subglobosis, verrucoso-angulosis, ochroleucis, 8 × 6, in cumulo albis; odore nullo.

   Hab. in muscosis silvaticis in Bavaria.

5. **Mycena modestissima** Britz. Hymen. Kunde. I, 1895, p. 3, fig. 377. — Pileo hygrophano, brunneolo-albido-pallescente; lamellis subconfertis, albido-fuscis; stipite fusco, albo-medulloso; sporis rotundis, 6–8 μ. diam., aculeis numerosis subtilibus ornatis, in cumulo albis.

   Hab. in muscosis silvaticis in Bavaria.

6. **Mycena griseo-fulva** Britz. Hymen. Kunde I, 1895, p. 4, fig. 697.

— Pileo griseo-fulvo; lamellis confertis; stipite pileo concolori, apice albido; sporis 5 × 2 1/2; odore nullo.

Hab. in silvulis Bavariæ.

7. **Mycena cæsia** Peck, Bull. Torr. Bot. Club 1895, p. 486. — Pileo 94
submembranaceo, campanulato, striato, glabro, griseo-brunneo, centro nigrescente v. nigro-brunneo; lamellis tenuibus, subventricosis, griseolis v. cœruleo-griseis; stipite gracili, cavo, glabro, griseo-brunneo; sporis subellipticis, uno apice leviter apiculatis, 9–10 1/2 × 4–5 1/3.

Hab. ad Sphagna, Newfoundland Amer. bor. (Waghorne). — Pileus 10–13 mm. latus; stipes 3–5 cm. longus, 1–2 1/2 mm. crassus.

8. **Mycena elegantula** Peck, Bull. Torr. Bot. Club 1895, p. 199. — 95
Pileo membranaceo, conico v. campanulato, sulcato-striato, brunneo v. purpureo-brunneo; lamellis distantibus, adnatis, decurrentibus, albidis v. pallidis, acie purpureo-brunneis; stipite gracili, cavo, glabro, basi interdum laxe griseo-fibrilloso-tomentoso; sporis oblongo-ellipticis, 9–13 × 4–5 1/4, plerumque 1 v. 2 nucleis præditis.

Hab. cæspitosa inter folia et arbores dejectas, California (Mc. Clatchie). —Pileus 9–22 mm. latus; stipes 2 1/2–5 1/2 cm. longus, 1 1/5 mm. crassus. *M. atro-marginatæ* Fr. et *M. purpureo-fuscæ* Peck affinis.

9. **Mycena pura** Pers., Sacc. Syll. V, p. 256. — Var. **gracilenta** P. 96
Henn. Pilze Ostafr. p. 60. — Pileo membranaceo, tenui, violaceo, margine striatulo, 1–1 1/2 cm. lato; stipite gracili, tenui, flavo-brunneo, circiter 4 cm. longo, 1 mm. crasso, cavo, basi villoso; lamellis adnexis, reticulato-connexis, latis, flavo-carnescentibus; sporis cylindraceo-ellipticis, 6–7 × 3.

Hab. in silvulis udis in Africa tropica (Volkens).

10. **Mycena fusco-umbonata** Britz. Hymen. Kunde I, 1895, p. 4, 97
fig. 698. — Pileo albido, centro fusco; lamellis subconfertis, albis; stipite albido; sporis oblongo-rotundis, acutatis, 10 × 6,7.

Hab. in muscosis ad truncos populeos in Bavaria.

11. **Mycena intertexta** B. et C. Cent. of N. A. fungi 1859, p. 4. — 98
Densissime cæspitosa; pileo hemisphærico, umbonato, demum expanso, fusco-cinereo, margine pallidiore striato; stipitibus villo connatis, subfragilibus; lamellis distantibus, crassiusculis adnatis, albis.

Hab. ad Pinos, in Carolina inf. Amer. bor. (M. A. Curtis). — Pileus 6-16 mm. lat.; stipes 5 cm. alt., 1-1 1/2 mm. cr. fistulosus supernes glaber et fuscus, inferne pallidior.

12. **Mycena connatipes** B. et C. Cent. of N. A. fungi, 1859, p. 4. 99
— Dense cæspitosa; pileo hemisphærico alutaceo; stipitibus albis basi connatis; lamellis albido-flavis, dente adnatis.

Hab. dense gregaria ad terram in Carolina sup. Amer. bor. (Curtis). — Pileus 4-16 mm. lat.; stipes 5 cm. long., 3 mm. cr. *Mic. proliferæ* affinis sed pileus hemisphæricus et lamellæ subdecurrentes.

13. **Mycena nivella** Sacc. et Syd. Sic nominanda est *Mycena nivea* Quél. 100
et Schulz., Sacc. Syll. V, p. 290, quum exstet anterior *M. nivea* Quél.

14. **Mycena Quéleti** Sacc. et Syd. Sic nominanda est *Mycena montana* 101
Quél. Sacc. Syll. IX, p. 37, quum exstet præcedens *M. montana* Peck.

15. **Mycena tenuicula** Karst. sec. Cke. in litt. (Ubi descripta?) 102
Hab. in Fennia.

HIATULA Fr. — Syll. V, p. 305, IX, p. 40, XI, p. 23.

1. **Hiatula Boniana** Pat. Journ. de Bot. 1897, p. 336. — Pileo con- 103
vexo, dein expanso ac subplano, 5 cm. lato, umbonato, sulphureo, sicco, tenuissimo, non fragili, pulverulento; lamellis numerosis integris, liberis; stipite cavo, sicco, tenaci, pulverulento, basi subbulboso, 7 cm. longo, sulphureo, exannulato; sporis hyalinis ovoideis v. apice attenuatis, poro germinativo lato instructis, 8-10 × 5-6.

Hab. ad terram humosam pr. silvas in Tonkin.

OMPHALIA Fr. — Syll. V, p. 308, IX, p. 41, XI, p. 23. — Conferatur clavis analytica specierum boreali-americanarum in 45 Rep. p. 32, clar. Peckii.

1. **Omphalia albidula** Peck, 59 Rep. Stat. Bot. N. York. 1896, p. 17. 104
— Pileo tenui, convexo, glabro, umbilicato, distanter striato, albido; lamellis latis distantibus, decurrentibus, albis; stipite gracili, glabro v. apice interdum farinaceo, basi strigoso-piloso, solido, albo v. albido; sporis subellipticis, uno apice apiculatis, 8-10 $^1/_2$ × 5-6 $^1/_2$.

Hab. ad corticem arborum, New York Amer. bor. — Pileus $^3/_4$-1 cm. latus; stipes 2-2 $^1/_2$ cm. longus, 1 mm. crassus.

2. **Omphalia pubescentipes** Peck, Bull. Torr. Bot. Cl. 1897, p. 141. 105
— Pileo tenui convexo, umbilicato, glabro, rubescenti-luteo, sæpe marginem versus pallidiore; lamellis modice confertis, decurrentibus, albidis; stipite gracili, pubescente, sordide luteo-brunneo, basi tomento mycelioideo tecto; sporis ellipticis, 6 $^1/_2$ × 4.

Hab. in lignis putrescentibus in Alabama Amer. bor. (Earle). — Pileus 4 1/2–9 mm. latus; stipes circiter 2 1/2 cm. longus, 1 mm. crassus.

3. **Omphalia minutissima** P. Henn. Engl. Jahrb. XXIII, p. 555. — 106
Pileo membranaceo, pellucido, convexo, depresso, subinfundibuliformi, striato, undulato, levi glabroque, niveo, 1–2 mm. diam.; stipite filiformi, glabro, levi, basi bulbilloso, substrigoso, 6–10 mm. longo, concolori; lamellis decurrentibus, paucis, 5–7, distantibus, albis; sporis subellipsoideis, hyalinis, 3 1/2–4 1/2 μ. long.

Hab. in ramis putridis in Camerunia (Staudt). — *O. integrellæ* affinis.

4. **Omphalia bipindeensis** P. Henn. Engl. Jahrb. XXIII, p. 555. — 107
Pileo membranaceo, tenui, campanulato, centro umbilicato, obscuriore, radiato-striato, flavo, subochraceo, 2–10 mm. diam.; stipite gracili, tereti, æquali, cavo, levi glabroque, flavo-brunneolo, ad basim obscuriore, 2–4 cm. alto, 1–1 1/2 mm. crasso; lamellis decurrentibus, subarcuatis, confertis, pallide flavis; sporis ellipsoideis, hyalinis, levibus, 4–5 × 3–3 1/2.

Hab. in ligno putrido in Camerunia (Zenker).

5. **Omphalia luteola** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 411. 108
— Pileo tenui, convexo v. subhemisphærico, glabro, centro depresso v. late umbilicato, luteolo; lamellis paucis, 10–15, distantibus, decurrentibus, pallidis; stipite gracili, glabro, solido, brunneo, basi mycelio albo; sporis subellipticis, 6 1/4–7 × 4, plerumque 1-nucleatis.

Hab. in ligno pineo, Washington Amer. bor. — Pileus 1/2–1 cm. latus; stipes fere 1 1/3 cm. longus, 1 mm. crassus. *O. Campanellæ* valde affinis.

6. **Omphalia subintegrella** P. Henn. Fungi camerun. I, in Engl. Jahrb. 109
XXII, 1895, p. 105. — Pileo membranaceo, primo subresupinato, excentrico-stipitato, albo, radiato-striato vel subsulcato, vertice depresso, 3–4 mm. lato, margine tenui sinuoso reflexo; stipite curvulo, tenui, albo, glabro levique, basi discoideo, 1–3 mm. longo; lamellis paucis, 3–6, valde distantibus, decurrentibus, albis.

Hab. ad caudices putres *Calami*, Kamerun. (Dusén.). — *O. integrellæ* Pers. affinis.

7. **Omphalia squalido-fusca** Britz. Hymen. Kunde. I, 1895, p. 4, 110
fig. 704. — Pileo sordide brunneo, marginem versus leviter sulcato, demum transverse rimoso; lamellis isabellinis vel rubro-isabellinis, subconfertis; stipite pileo concolori, sursum pallidiore,

deorsum obscuriore; carne brunnea; sporis 8 × 4, in cumulo albis; odore nullo.

Hab. in silvis pineis in Bavaria.

8. **Omphalia n'dianensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII 1895, p. 105. — Nivea; pileo membranaceo, hemisphærico-campanulato, centro minute depresso, sulcato-subplicato, levi, margine tenui membranaceo, 2–4 mm. diam.; stipite gracili, filiformi, levi glabroque, basi subincrassato, subdisciformi, flavo, $1\,^1/_2$–$2\,^1/_2$ cm. longo, vix $^1/_3$ mm. crasso; lamellis subdecurrentibus, acutis, distantibus, tenuibus, inæqualibus; sporis ovoideis, hyalinis, levibus, 5–6 μ. 111

Hab. ad folia putrida, N'dian Kamerun (Dusén.). — *O. gracillimæ* (Weinm.) affinis.

9. **Omphalia Staudtii** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 105. — Pileo infundibuliformi, membranaceo-carnosulo, flavo, radiatim brunneo-striato, subsulcato, margine repando, $1\,^1/_2$–2 cm. longo, $1\,^1/_2$–2 mm. crasso; lamellis triquetro-decurrentibus, subconfertis, inæqualibus, flavis, subundulatis, basi sæpe anastomosantibus; sporis ellipsoideis, levibus, 1-guttulatis, 6–7 × $4\,^1/_2$–5 μ. 112

Hab. ad ligna putrida, Kamerun (Zenker et Staudt.) — *O. reflexæ* Bres. proxima.

10. **Omphalia campestris** Rom. Bot. Notis. 1895, p. 69. — Serotina, glabra; pileo fuligineo-fusco, membranaceo, in centro leviter umbilicato, ceterum campanulato, hemisphærico v. demum etiam convexo-applanato, margine in statu udo pellucide striato, in sicco sulcato, 5–15 mm. diam.; stipite æquali, deorsum pileo concolori, sursum albo, glabro, intus fistuloso, $1\,^1/_2$–3 cm. longo, 1–$1\,^1/_2$ mm. raro ultra crasso; lamellis distinctis, albo-cæsiis, decurrentibus, $1\,^1/_2$–3 mm. latis; sporis ellipsoideis v. obovatis, 9–13 × 6–8 μ., hyalinis. 113

Hab. in collibus muscoso-graminosis Sueciæ.

11. **Omphalia pectinata** Rom. Bot. Notis. 1895, p. 68. — Tota alba, glabra, hygrophana, sapore miti, odore fere nullo; pileo membranaceo, in centro sæpe umbilicato, ceterum convexo vel etiam campanulato, margine sinuoso v. fere lobato, usque ad medium pectinato-sulcato, 3–6 cm. diam.; stipite subæquali, demum irregulariter angusteque fistuloso, extus fere glabro, sursum vix striato, 4–6 cm. longo, ca. 4 mm. crasso; lamellis fere distantibus, circa stipitem decurrentibus, angustis, 2–4 mm.; sporis ellipsoideo-oblongis, basi sæpe breviter apiculatis, hyalinis, 6–7 × 3 μ.; basidiis 114

clavatis, 30 × 7 μ.; cystidiis nullis vel saltem non basidia superantibus.

Hab. in silvis coniferis in Suecia.

12. **Omphalia semivestipes** Peck, Bull. Torr. Bot. Club. 1895, p. 200. — Pileo tenuissimo, convexo v. subcampanulato, glabro, sicco griseo-brunneo, vivo pallidiore; lamellis sublatis, distantibus, arcuatis, decurrentibus, albis v. albidis; stipite cavo, albo v. albido, parte superiore glabro, inferiore tomento albo vestito; sporis ellipticis, $5\,^1/_4$-$6\,^1/_4$ × 3-4. 115

Hab. in ligno putrido, Newfoundland Amer. bor. (Waghorne). — Pileus 13-27 mm. latus; stipes circiter $2\,^1/_2$ cm. longus, 2-$4\,^1/_2$ mm. crassus.

13. **Omphalia nigripes** Pat. Bull. Soc. Myc. de Fr. 1895, p. 204. — Pileo orbiculari deflexo, infundibuliformi, fusco-ochraceo, tenui, pruinoso, 12-15 mm. diam., usque ad centrum dense minuteque sulcato, margine recto, acuto, inciso v. crispato; lamellis albido-ochraceis, latiusculis, decurrentibus, brevioribus immixtis; stipite fragili, cavo, torto, fusco-atro, pruina alba consperso, 10 cm. longo, 2-3 mm. crasso. 116

Hab. ad terram in Æquatoria (v. Lagerheim).

14. **Omphalia pichinchensis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 205. — Pileo deflexo, orbiculari, centro depresso, subinfundibuliformi, fusco-brunneo, pruinoso, pellucido, tenui, fere ad centrum dense striato, margine incurvo, integro, 8-12 mm. diam.; lamellis strictis, simplicibus, non confertis, integris, concoloribus, acie obtusis, subdecurrentibus; stipite fistuloso, elongato, 8-10 cm. longo, tenui 2 mm. crasso, fragili, fusco, levi vel striatulo, pruina alba consperso; sporis hyalinis, ovoideis, 6 × 4; cystidiis nullis. 117

Hab. ad terram in Æquatoria (v. Lagerheim).

15. **Omphalia blumenaviensis** P. Henn. Hedw. 1897, p. 208. — Pileo membranaceo, translucente, campanulato, centro depresso, dein infundibuliformi, radiato-sulcato, subplicato, ruguloso, griseo-brunneo, hygrophano, $1\,^1/_2$-2 cm. diametro; stipite fistuloso, substriato, pallido, levi, basi subdisciformi; lamellis triangulari-decurrentibus, latis ventricosis, pallide lutescentibus; sporis subovoideis, 7-8 × 4-5, basi apiculatis, hyalinis. 118

Hab. ad lignum emortuum pr. Blumenau Brasiliæ (Möller).

16. **Omphalia crocea** P. Henn. Hedw. 1897, p. 208. — Pileo membranaceo, campanulato, centro depresso, sulcato-striato, croceo-aurantiaco, ca. 2 mm. diametro; stipite farcto, tenui, concolori, ca. 119

3 mm. longo, 0,3 mm. crasso; lamellis distantibus, paucis, decurrentibus, flavis, acie incrassatis; sporis subglobosis, levibus, hyalinis, 3–4 v.; basidiis clavatis.

Hab. ad cortices truncorum pr. St. Catharina Brasiliæ (Ule). — *Omphaliæ Campanellæ* videtur affinis.

17. **Omphalia ke-soensis** Pat. Journ. de Bot. 1897, p. 337. — Tota albo-flava; pileo glabro, orbiculari, 1–2 cm. lato, margine striato, valde umbilicato, vix carnoso; lamellis longe decurrentibus integris, acie acutis, non confertis, una alterave breviore immixta, interdum venoso-connexis; stipite glabro, gracili, 1–2 mm. crasso, cylindrico, tenaci, recto v. flexuoso, sursum regulariter incrassato. 120

Hab. ad terram umbrosam in Tonkin.

18. **Omphalia hirtipes** Pat. Journ. de Bot. 1897, p. 336. — Tota alba; pileo convexo, dein plano, subcarnoso, tenui, pellucido, 6–8 cm. lato, vix pruinoso; lamellis non numerosis, angustis acie acutis, decurrentibus, una alterave breviore immixta, venulis inter se non connexis; stipite gracili filiformi, subtenaci, floccis tomentosis albis affixo, 12–15 mm. longo. 121

Hab. ad folia putrida Borassi, Tonkin. — *O. amabili* proxima. 122

19. **Omphalia Tagetes** Mont. Ann. Sc. nat. 1860, p. 182, tab. XI. — Pileo submembranaceo, pyxidato, striato, villosulo, margine reflexo et repando; stipite fuligineo, glabro, fistuloso, basi fulvo-lanoso; lamellis tetradymis, confertiusculis, longe decurrentibus, aureo-variegatis.

Hab. ad ligna putrida in Ohio Amer. bor. (Sullivant). — Elegantissima species, coloribus floris *Tagetis*. Pileus 2-3 cm. lat.; lamellæ 1-2 mm. latæ; stipes 4-7 cm. long., 1-2 mm. cr.; sporæ albæ. Affinis *O. Campanellæ* et *O. chrysophyllæ*.

PLEUROTUS Fr. — Syll. V, p. 339, IX, p. 45, XI, p. 24.

1. **Pleurotus importatus** P. Henn. Engl. Jahrb. XXIII, p. 554. — Pileis carnosis, cæspitoso-imbricatis, dimidiatis, conchatis, pallidis, squamulis tomentosis depressis murinis dense tectis, ad marginem obscurioribus, velutino-tomentosis, tenuibus, usque ad 15 cm. latis, 10 cm. longisque; carne alba, æquali; lamellis decurrentibus, subconfertis, inæquilongis, subventricosis, haud venoso-connexis, albis, sicco flavescentibus; sporis cylindraceo-oblongis, basi oblique apiculatis, levibus, hyalinis, 9–11 × 4–5. 123

Hab. in trunco Elaeis guineensis e Camerunia Berolinum importato.

2. **Pleurotus togoensis** P. Henn. Engl. Jahrb. XXIII, p. 554. — 124
Pileo submembranaceo-carnosulo, horizontaliter affixo, spathulato v. subflabelliformi, convexo, pallide cinereo, margine radiatim striato, interdum undulato, 2-2 $^1/_2$ cm. longo, 1 $^1/_2$-2 cm. lato, basi disciformi v. substipitato; lamellis ad basin decurrentibus, latis, ventricosis, haud confertis, pallidis; sporis oblongo-cylindraceis, apiculatis, hyalinis, intus granulatis, 9-11 × 3-3 $^1/_2$.

Hab. in truncis vetustis in Togo (Baumann). — *P. miti* Peis. et *P. camerunensi* P. Henn. affinis.

3. **Pleurotus lignatilis** Fr.-Sacc. Syll. V, p. 344. — forma **aspera** 125
Vogl. Bull. Soc. bot. Ital. 1896, p. 42. — Pileo carnoso-tenaci, convexo-plano, primo floccoso-pruinoso, dein in papillas secedente, 5-7 cm. lato, albido; lamellis adnatis, confertis, angustis, candidis; sporis ellipsoideo-sphæroideis, 4-5 × 3; basidiis clavatis, 4-sterigmaticis, 16-18 × 6-8; stipite subtenui, irregulari, subvilloso, 5-6 cm. longo, 6-8 mm. crasso.

Hab. ad ligna in silvaticis montis Caprino pr. Lugano in Helvetia italica.

4. **Pleurotus aggregatus** Bres. Hedw. 1896, p. 276. — Sessilis; pileo 126
e resupinato reflexo, dimidiato, membranaceo, luteo, glabro, 1 $^1/_2$-3 mm. lato; lamellis ventricosis, crassiusculis, acie acuta, distantibus, postice rotundato-attenuatis, concoloribus; sporis hyalinis, subglobosis, 6-7 × 5; basidiis clavatis, 30 × 6-8.

Hab. ad ligna dense gregarius pr. Blumenau Brasiliæ (Möller).

5. **Pleurotus samoensis** P. Henn. in Engl. Jahrb. XXIII, 1896, 127
p. 284. — Pileo carnoso, compacto, excentrico verticali stipitato, convexo, subflabellato, alutaceo, levi glabroque, ca. 10 cm. longo, 14-15 cm. lato; lamellis decurrentibus, latis, subconfertis, fuscescentibus; stipite ca. 5 cm. crasso, ca. 7 cm. longo, carnoso, basi disciformi; carne in sicco pallide alutacea; sporis non visis.

Hab. ad truncos in ins. Upolu ins. samoëns. (Graeffe).

6. **Pleurotus camerunensis** P. Henn. in litt. syn. *Pleurotus submitis* 128
P. Henn. in Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 104. nec Speg. — Pileo carnosulo, tenui, flabellato v. subreniformi, levi glabroque, margine substriato, albo, nitidulo, circ. 1 $^1/_2$-2 cm. lato, 1-1 $^1/_2$ cm. longo; stipite brevi, laterali v. obsoleto, 2 mm. crasso, basi disciformi, levi; lamellis inæquilongis, sæpe furcatis, subconfertis, semilanceolatis, albis.

Hab. ad truncos putres, Kamerun (Dusén). — *Pl. miti* Pers. affinis, sed candidissimus.

7. **Pleurotus properatus** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, p. 177. — Pileo membranaceo, forma vario, semper plus minusve umbilicato, centrali v. excentrico, interdum unilaterali v. flabelliformi convexo-cyathiformi v. infundibuliformi, sæpe radiatim lacerato, 4-7 cm. lato, albo-flavo, cuticula in squamulas fibrillosas obscure brunneas concentrice dispositas fugaces centro subpersistentes lacerata; lamellis adnato-decurrentibus v. arcuato-decurrentibus, linearibus, inæqualibus, sublatis, confertis, albo-flavis acie erosis; stipite annulato, recto v. curvato, cylindrico interdum compresso æquali, 1-3 $^1/_2$ cm. longo, $^1/_2$ cm. crasso, deorsum squamis concentricis obscure brunneis tecto; annulo membranaceo, fugaci; sporis elongato-pruniformibus v. fusiformibus; sapore grato, odore farinoso. 129

Hab. ad truncos ad ripam fl. Aire pr. Certoux in Helvetia.

8. **Pleurotus germinans** De Seyn. Rech. Champ. Congo fr. I, p. 9, tab. I, fig. 18-20. — Pileo sessili fere pezizæformi v. excentrico auriformi, levi, carnosulo, firmo, margine recto, subinvoluto, ochroleuco, 1-1 $^1/_2$ cm.; lamellis inæqualibus, angustis, confertis, concoloribus; hymenio cystidiis vegetantibus ornato; basidiis rarissimis oblongis; sporis hyalinis, 5 × 3 μ. 130

Hab. ad cortices arborum pr. Kangroé, Lambaréné in regione Kongolana gallica.

9. **Pleurotus ogonensis** De Seyn. Champ. Congo fr. 1897, I, p. 8, tab. III, fig. 15-16. — Pileo semiinfundibuliformi expanso, margine undulato, postice breviter elongato stipitiformi, albo-argenteo, carnosulo, levi, non hygrophano, 2-3 $^1/_2$ cm. lato; lamellis 5 mm. latis inæqualibus, sinuosis, concoloribus; hymenio homogeneo, cystidiis nullis; basidiis oblongis fere ovatis; sterigmatibus sublongis; sporis hyalinis, ovalibus, 4-5 × 3 μ. 131

Hab. ad truncos pr. Talagouga in regione Kongolana gallica.

10. **Pleurotus ostreatus** Jacq.-Sacc. Syll. V, p. 355. — Var. **nudipes** Boud. Bull. Soc. Mycol. de France, 1897, p. 11, tab. 1, fig. 1. — Cæspitosus; pileo excentrico aut fere dimidiato, glabro intense cinereo-fusco; pediculo albo, levi; lamellis albidis, longe decurrentibus, postice anastomosantibus; sporis albis, oblongo-cylindricis, vix curvatis, intus subgranulosis, 10-11 × 4-4 $^1/_2$. 132

Hab. ad ossa Balenae uda in Museo Burdigalensi Galliæ (Dubalen).

11. **Pleurotus Schwabeanus** P. Henn. Notizbl. Königl. Bot. Gart. u. Mus. Berlin. 1897, N. 7, p. 229. — Pileo carnosulo, laterali, 133

flabelliformi vel subreniformi, convexo-explanato v. conchiformi, cæspitoso, levi glabroque, albido, margine integro v. inciso-lobato, 2-5 cm. lato, 1 1/2-2 1/2 cm. longo, postice stipitiformi-attenuato, discoideo affixo, basi tomentoso-strigoso; lamellis subconfertis, inæquilongis, decurrentibus, subventricosis, flavis, acie integris; sporis ellipsoideis vel subovoideis, hyalinis, levibus, 7-8 × 4-5.

Hab. ad truncos putridos, Marshall-Inseln.

12. **Pleurotus Suberis** Pat. Cat. rais. pl. cell. Tunisie. 1897, p. 29. 134
— Eximie cæspitosus; pileo carnoso, excentrico, glabro, albido v. gilvo, postice depresso, margine reflexo, lobulato, lobulis imbricatis, numerosis, antice truncatis, postice cuneatis; stipitibus excentricis, crassiusculis, inferne attenuatis, glabris, validis, pileo concoloribus; lamellis albis, confertiusculis, latis, longe decurrentibus, minoribus immixtis, acie integris; sporis in cumulo albis, sub microsc. hyalinis, ovato-cylindraceis, rectis, 10-12 × 3-4 μ.; carne alba, sapida.

Hab. ad truncos vetustos Quercus Suberis in Tunisia. — Pileus circiter 10 cm. latus; stipes 4-8 cm. longus, 1 cm. crassus. Edulis.

HYGROPHORUS Fr. — Syll. V, p. 387, IX, p. 52, XI, p. 27.

1. **Hygrophorus cuspidatus** Peck, Bull. Torr. Bot. Cl. 1897, p. 141. 135
— Pileo tenui subcampanulato, glabro, cuspidato, rubro; lamellis latis ventricosis, luteis; stipite gracili, æquali, glabro, cavo; sporis ellipticis, 12-16 × 6 1/2-8.

Hab. ad terram in Canada Amer. bor. (Macoun). — Pileus 1 1/2-2 1/3 cm. latus; stipes 2 1/2-5 cm. longus, circiter 2 mm. crassus. *H. conico* valde affinis.

2. **Hygrophorus suberosus** Jacobasch. Allgem. Bot. Zeitschr. 1896, 136
p. 145. — Pileo convexo, subdepresso, non umbonato, subturbinato, carnoso, 6 1/2 cm. lato, opaco, luteo-rubro, glabro, margine tenui involuto; lamellis cremeis, angustis, crassis, arcuatis, decurrentibus, fragilibus; stipite pallido, æquali, basi curvato solido, 4 cm. longo, 0,8-1 cm. crasso, tenue floccoso-tomentoso, farcto; carne pallida, suberosa; sporis candidis, globosis, levibus, 3,7-5,5 μ. diam.; odore et sapore mitibus.

Hab. ad terram pr. Berolinum Germaniæ.

3. **Hygrophorus sulcatus** Karst. Hedw. 1896, p. 43. — Pileo e cam- 137
panulato-convexo expanso, obtuso, membranaceo, disco carnosulo, viscido, disco excepto levi, striato-sulcato, saturate fulvo, nitido, vix expallente, c. 2 cm. lato; stipite cavo æquali, substricto,

tenaci, levi, glaberrimo, viscido, lutescente, apice in fuligineum v. cœrulescentem levissime vergente, 4-5 cm. alto, 4 mm. crasso; lamellis decurrentibus, distinctis, crassiusculis, lutescentibus, postice in fuligineum leviter vergentibus.

Hab. in silvis frondosis ad Mustiala Fenniæ. — Inter *H. lætum* Fr. et *H. sciophanum* Fr. medius, differens ab illo pileo membranaceo, sulcato et colore, ab hoc pileo nitido, non hygrophano, nec non lamellis decurrentibus, lutescentibus.

4. **Hygrophorus nigridius** Peck, Bull. Torr. Bot. Club. 1895, p. 211. 138
— Pileo carnoso, convexo, obtuso v. subumbonato, glabro, griseolo-brunneo v. nigro-brunneo, centro sæpe obscuriore; carne alba; lamellis distantibus, decurrentibus, albis; stipite gracili, solido, brunneolo, apice albo; sporis ellipticis, $10^1/_2$-13 × $6^3/_4$-$7^3/_4$.

Hab. gregarius in abiegnis et pinetis, Prince Edwards Island (Mc Swain). — Pileus $2^1/_2$-5 cm. latus; stipes $2^1/_2$-5 cm. longus, $^1/_2$-1 cm. crassus. *H. caprino* Fr. affinis.

5. **Hygrophorus ericeti** Britz. Hymen. Kunde I, 1895, p 12, f. 107. 139
— Pileo luteolo, brunneolo vel carneo; lamellis distantibus, anastomosantibus, albis vel pallidissime ochroleuco-carneis; stipite pileo concolori; sporis 10 × 6-8.

Hab. in ericetis in Bavaria.

6. **Hygrophorus parvipes** Britz. Hymen. Kunde I, 1895, p. 12, f. 108. 140
— Pileo non viscido, albido vel pallide brunneo-albido; lamellis distantibus, albis; stipite pileo concolori; sporis ochroleucis, 10-12 × 6, subirregularibus.

Hab. in silvaticis in Bavaria.

7. **Hygrophorus flavellus** Britz. Hymen. Kunde I, 1895, p. 12, f. 111. 141
— Pileo hygrophano, albido-vitellino vel vitellino; stipite luteolo, superne ochroleuco; sporis ochroleucis, 10 × $4^1/_2$.

Hab. in silvaticis in Bavaria.

8. **Hygrophorus sphærosporus** Peck, Bull. Torr. Bot. Club. 1895, 142
p. 386. — Pileo carnoso, centro crasso, subobconico, convexo, obtuso v. leviter umbonato, albido, rubro-brunneo tincto, margine incurvo, carne firma, alba; lamellis sat latis, subdistantibus, adnatis v. leviter decurrentibus; stipite floccoso, flexuoso, solido, glabro, basi sæpe leviter incrassato, colore pilei; sporis $6^1/_3$-8 μ. diam., globosis.

Hab. ad terram in Jowa Amer. bor. — Pileus $1^1/_2$-$2^3/_4$ cm. latus; stipes $2^1/_2$-5 cm. longus, $^1/_2$-$^3/_4$ cm. crassus. *H. Peckiano* affinis.

9. **Hygrophorus kilimandscharicus** P. Henn. Pilze Ostafr. p. 59. — 143
Pileo subconico-campanulato, dein explanato, obtuso subumbilicato, 1-3 cm. lato, levi glabroque, non viscido, coccineo, margine obscuriore non nigricante, substricto; stipite cavo, striato-sulcato, subcontorto, non incrassato, sulphureo, 3-5 cm. longo, 2-3 cm. crasso; lamellis postice subattenuatis, subliberis, ventricosis, crassis, distantibus, basi subvenosis, inæquilongis, acie crenatis, circiter 5 mm. latis, sulphureis; sporis ellipsoideis, hyalinis, intus subgranulatis, 9-11 × 5-6.

Hab. ad terram scissam frequens in Africa tropica (Volkens). *H. flammanti* Scop. affinis.

10. **Hygrophorus elegantulus** Peck, Bull. Torr. Bot. Club. 1895, p. 200. 144
— Pileo convexo v. subplano, glabro, viscido, griseolo-luteo, carne alba; lamellis distantibus, vix decurrentibus, albis; stipite æquali, solido, glabro, apice leviter floccoso-squamuloso, glutinoso, albo v. albido, basi interdum abrupte acutato; sporis ellipticis, $10^1/_2$ × $5^1/_4$-$6^1/_2$.

Hab. in silvis, Maryland Amer. bor. — Pileus $2^1/_2$-$5^1/_2$ cm. latus; stipes 5-8 cm. longus, 6-9 mm. crassus. *H. discoideo* Fr. affinis, a quo stipite solido et sporis majoribus diversus.

11. **Hygrophorus alutaceo-rubens** Otth ap. Trog, Mitth. nat Gesell. 145
Bern. 1857, p. 35. — Pileo convexo-applanato, obsolete umbonato, flavo-rubente, centro obscuriore, 4 cm. lat.; stipite 8 cm. longo, 8-9 mm. cr., cylindraceo, subcontorto, deorsum acutato rubello, infra albido, apice farinoso; lamellis vix decurrentibus, flavo-rubentibus 4 mm. lat.

Hab. ad terram, Bremgartenwald Helvetiæ.

12. **Hygrophorus albus** Otth ap. Trog in Mittheil. nat. Gesell. Bern. 146
1857, p. 36. — Pileo conico obtuso, 3-4 cm. lat., levi, albo, carnoso-molli; stipite albo, striato, nitente, 5 cm. long., superne 6 mm. cr., lamellis niveis, liberis, ventricosis, remotiusculis.

Hab. ad vias, Bremgartenwald Helvetiæ. — Ab *A. conico* dignoscitur colore albo et forma obtusiore.

13. **Hygrophorus hyporrhodius** Otth ap. Trog in Mittheil nat. Gesell. 147
Bern. 1857, p. 35. — Pileo convexo, dein impresso, griseo-brunneo, medio obscuriore squamulis sericeo-fibrillosis consperso, margine involuto, 4 cm. lat.; carne tenera sub cute griseola; stipite æquali, 7 cm. long., 4-5 mm. cr., farcto, albido, granuloso-squamuloso, molliusculo; lamellis leviter decurrentibus utrinque acutis, albido-roseis, basi venoso-connexis.

Hab. ad terram, Bremgartenwald Helvetiæ.

14. **Hygrophorus turundus** Fr.-Sacc. Syll. V, p. 413. — Var. **lepidus** 148
Boud. Bull. Soc. Mycol. de France. 1897, p. 12, tab. 1, fig. 2. — Medius 5-7 cm. altus, gracilis, splendide aureo-aurantiacus; pileo convexo squamulis minutis tomentoso-hirsuto, medio umbilicato, dein decolorante et aureo, centro saturatiore; stipite elongato, æquali, 2-3 mm. crasso, sursum fistuloso, deorsum solido, ad apicem paulo incrassato, glabro, colore pilei; lamellis crassis, distantibus, longe et abrupte decurrentibus, pallidis, sed colore pilei ad basim paululum tinctis; sporis oblongo-ovatis, intus granulosis, 9-10 × 5-6; carne stipitis aurantiaca, pilei pallidiore.

Hab. in nemoribus paludosis pluribus in Gallia.

LACTARIUS Fr. — Syll. V, p. 423, IX, p. 56, XI, p. 31.

1. **Lactarius villosus** Clem. Bot. Survey of Nebraska, IV, Lincoln. 149
1896, p. 20. — Pileo primo convexo, margine involuto tomentoso, dein explanato-umbilicato, raro infundibuliformi, spongioso-carnoso, sæpe irregulari, sericeo-villoso, fibrillis longis innatis, agglutinatis, centro sæpe minute tomentoso-areolato, initio albo, dein aurantiaco; stipite brevi crasso, sæpe excentrico, deorsum attenuato, solido, tomentoso, albo; lamellis adnexis, interdum decurrentibus, linearibus, confertissimis, albis v. interdum ochraceis; lacte copioso, acri, albo, immutabili; sporis irregulariter ellipsoideis v. ovoideis, uniguttulatis, echinulatis, 5-6 × 4-5; cystidiis numerosis, rugosis, lanceolatis, 25-30 × 5.

Hab. ad terram arenosam, Nebraska Amer. bor. — Pileus 6-12 cm. latus; stipes $1\,^1/_2$-$2\,^1/_2$, cm. longus et crassus.

2. **Lactarius sanguifluus** Fr.-Sacc. Syll. V. p. 439. — Var. **yvreus** 150
C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, p. 184. — Pileo ochraceo, maculis rubris v. luteis adsperso, nec concentrice zonato; stipite brevi, subcylindrico, plerumque deorsum attenuato sæpe cavo; lamellis amethysteis; lacte atro-coccineo.

Hab. ad terram sub Pinis in silva Yvre in Helvetia.

3. **Lactarius luteolus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 412. 151
— Pileo carnoso, tenui, convexo v. subplano, centro plerumque umbilicato-depresso rugosoque, pruinoso v. subglabro, luteolo; carne alba; lamellis confertis, subplanis, adnatis v. postice leviter rotundatis, albidis, tactu brunneolis; stipite brevi, æquali v. deorsum angustato, solido, sed intus leviter spongioso, colore pilei; sporis globosis, 8 μ. latis; lacte copioso, albo v. albido; sapore miti.

Hab. in silvis, Massachusetts Amer. bor. — Pileus 5–8 cm. latus; stipes $2^1/_2$–$6^1/_2$ cm. longus, $^3/_4$–$1^1/_4$ cm. crassus. *L. volemo* et *L. hygrophoroidi* affinis.

4. **Lactarius carneo-isabellinus** Britz. Hymen. Kunde II, 1896, p. 5, fig. 74. — Pileo glutinosissimo, carneo-isabellino; lamellis subdistantibus, dilute carneo-isabellinis; sporis luteolis, asperis, 8 × 6, in cumulo isabellino-albidis; lacte ex albo brunneolo; sapore grato. 152

Hab. in silvis in Bavaria.

5. **Lactarius albo-carneus** Britz. Hymen. Kunde I, 1895, p. 13, fig. 73. — Pileo valde glutinoso, albo-carneo; carne alba; lamellis albis, confertissimis; stipite albo vel subcarneo; sporis 10–15 × 8–10, in cumulo albis. 153

Hab. in silvaticis in Bavaria. — Lac acre, album.

6. **Lactarius mitificus** Britz. Hymen. Kunde III, 1897, p. 7, fig. 80. — Pileo lateritio-sanguineo, fibroso; carne alba; lamellis confertis, luteolo-carneis; stipite pileo concolori, sæpe unilaterali, subfistuloso; sporis asperis, luteolis, 8 × 6, in cumulo isabellinis; sapore miti. 154

Hab. in quercetis in Bavaria.

7. **Lactarius Hatsudake** Tanaka, Bot. Mag. Tokio, 1890, p. 2-7 cum icone et Grev. 1891, p. 63. — Pileo carnoso 5–10 cm. lat., hemisphærico dein expanso, umbilicato, viscido, zonato, glabro, sordide brunneo, rubro-tincto, margine levi, primitus incurvo; stipite farcto, dein cavo, rubente, pruinoso, subæquali curto, 1-3 cm. long.; lamellis decurrentibus, sæpe ramosis, latiuscule ventricosis purpurascenti-brunneis, dein cyanescentibus; lacte aromatico, rubente; sporis echinulatis, subsphæricis v. ovoideis, subhyalinis, 8-10 μ. diam. 155

Hab. ad terram pr. Tokio Japoniæ. — Optime edulis, vulgo *Hatsudake.*

8. **Lactarius Akahatsu** Tanaka, Bot. Mag. Tokio, 1890, p. 2-7 cum icone et Grev. 1891, p. 63. — Pileo carnoso 2–8 cm. lato, hemisphærico, dein expanso, umbilicato, viscido, distincte zonato, glabro, flavido-rubro, dein pallido, margine levi, primitus incurvo pallidiore, dein subrepando, acutiusculo; stipite 1-4 cm. longo, subæquali, curvo, farcto, dein cavo, flavido, pruinoso; lamellis decurrentibus, aurantiis dein viridulis satis angustis sed ventricosulis; lacte aurantio, aromatico; sporis echinulatis subsphæricis v. ovoideis, subhyalinis, 9-11 × 6-8. 156

Hab. ad terram pr. Tokio Japoniæ. — Edulis sed inferior præcedenti.

RUSSULA Pers. — Syll. V, p. 453, IX, p. 59, XI, p. 29.

1. **Russula bona** Schwalb, Lotos. 1896, c. tab. — Pileo subcarnoso, 157
non membranaceo, usque ad 8 cm. lato, sæpius irregulari, lilacino, centro pallido v. obscuro, interdum subpruinoso, velutino, jove pluvio glabro, margine interdum incurvato; lamellis angustatis adnexis, subventricosis, antice vulgo late rotundatis, brevioribus immixtis, furcatis, albo-flavis, demum pallide vitellinis; stipite inæquali, sæpius curvato, albo, striato, subglabro, elastico, cavo, $3^1/_2$–6 cm. alto, 1–2 cm. crasso; sporis pallide vitellinis, globosis v. globoso-ellipticis, papillosis, aculeolatis, 8–12 μ. latis; carne alba, sapore miti.

Hab. in silvis in Bohemia. — *R. puellari* affinis.

2. **Russula pallida** Karst. Hedw. 1896, p. 43. — Acris; pileo car- 158
noso, firmo, rigido, e convexo explanato, ut plurimum undulato-difformi, pellicula viscidula adnata tecto, constanter pallescente, subinde hinc inde obsolete roseo-sanguineo, margine levi, usque ad 9 cm. lato; stipite æquali, levi, sæpe curvato, albo, usque ad 6 cm. alto, c. 2,5 cm. crasso; lamellis subliberis, confertis, æqualibus, sat angustis, usque ad 1 cm. latis, albis, acie subinde sulphureis, siccitate lutescentibus; sporis sphæroideis, aculeatis, 5–8 μ. diam.; cystidiis fusoideis 30-40 × 9.

Hab. in pineto pr. Mustiala in Fennia. — *Russulæ rosaceæ* affinis. A *R. pallescente*, cum qua colore vegeta congruit, statura robustiore, margine pilei levi, sporis aliisque notis statim dignoscenda.

3. **Russula ochraceo-alba** Britz. Hymen. Kunde II, 1896, p. 6, fig. 131. 159
— Pileo albido-ochraceo vel griseo-luteo; carne alba; lamellis confertissimis, pallide albo-luteis; stipite albo; sporis luteis, 9–10 × 7–8; sapore miti.

Hab. in silvis in Bavaria.

4. **Russula subdepallens** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 160
p. 411. — Pileo carnoso, primo convexo, margine striato, dein expanso v. centro depresso et margine tuberculato-striato, viscido, sanguineo v. purpureo-rubro, maculis luteolis adsperso, demum pallidiore v. subalbido, sæpe irregulari; carne fragili, alba, ætate cinerea, sub cuticula rubescente; lamellis latis, subdistantibus, adnatis, albis v. albidis, interstitiis venosis; stipite firmo, solido, intus spongioso, albo; sporis albis, globosis, asperis, 8 μ. latis; sapore miti.

Hab. ad terram in Pennsylvania Amer. bor. — Pileus 8-16 cm.

latus; stipes 4-8 cm. longus, $1^1/_2$-$2^3/_4$ cm. crassus. *R. depallenti* valde affinis.

5. **Russula intermedia** Karst. Hedw. 1895, p. 7. — Acris; pileo carnoso, firmo, dein fragili, expanso, depresso, solido irregulari, viscoso-pelliculoso, carne sub pellicula albo, margine tenui, levi, demum sulcato tuberculosoque, fulvo, disco obscuriore, subsanguineo-fulvo, marginem versus pallidiore, decolorante, 9-11 cm. lato; stipite æquali v. sursum incrassato, levi, albo, circ. 7 cm. alto, 2-3 cm. crasso; lamellis subliberis, subconfertis, æqualibus, albis, dein flavescentibus, usque ad 1 cm. latis. 161

Hab. in betuletis pr. Tammela Fenniæ. — *R. integræ* simillima, sed sapore coloreque ab ea differens.

6. **Russula fœtida** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, p. 185. —Pileo viscido membranaceo, sulcato, 3-$4^1/_2$ cm. lato, colore vario, plerumque luteo-brunneo; carne sub cuticula brunnea, alibi alba; stipite fragilissimo, sæpe ventricoso, deorsum attenuato, lacunoso v. cavo, albo, sæpe deorsum maculis luteis v. rubris adsperso, 2-3 cm. longo; lamellis inæqualibus, stipitem versus furcatis, rotundato-liberis v. adnexis, venoso-connexis, ex albo flavis, initio confertis dein subdistantibus; sapore grato. 162

Hab. in graminosis Helvetiæ. — Fœtida, odore empyreumatico gravissimo mox distincta ideoque cum *R. fœtente* comparanda species.

7. **Russula luteo-viridans** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, p. 187. — Pileo initio convexo, centro plus minusve depresso, demum margine erecto sinuoso ac valde sulcato, pellicula viscida facile separabili lutea, sed maculis viridibus ac brunneis adspersa tecto, 3-9 cm. lato; carne alba, sub cuticula lutea, sapore miti, dein piperato, odore nullo; stipite æquali v. ventricoso, basi attenuato, reticulato, spongioso-farcto, 3-5 cm. longo; lamellis adnexis, marginem versus rotundatis, usque ad $1^1/_2$ cm. latis, simplicibus æqualibusque, subdistantibus; sporis globulosis, aculeolatis. 163

Hab. in graminosis Helvetiæ. — Var. **bicolor** C. Mart. l. c. A typo tantum recedit colore disco pilei luteo, marginem versus brunneo, lamellis obscure ochraceis; var. **purpurea** C. Mart. l. c. A typo differt colore pilei purpureo, disci luteo. Item in graminosis Helvetiæ.

8. **Russula cerasina** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, p. 187. — Pileo viscido, centro depresso, subcyathiformi, margine sulcato, pellicula separabili cerasina, disco lutea, $5^1/_2$-7 cm. lato; 164

carne sub pellicula purpurea, in stipite subgriseola; stipite subæquali rugoso, albo, spongioso-farcto, 4-6 cm. longo; lamellis adnato-decurrentibus, marginem versus rotundatis, confertis v. subconfertis, stipitem versus subfurcatis, venoso-connexis, æqualibus, ochraceis; sporis luteis, globulosis, aculeolatis; sapore miti, dein acri, odore nullo.

Hab. in silvis in Helvetia.

9. **Russula luteolo-alba** Britz. Hymen. Kunde I. 1895, p. 13, fig. 121. 165
— Pileo ochroleuco vel viridi-ochroleuco; carne alba, fragili, dulci; lamellis confertis v. confertissimis, tenuibus, ochraceis vel fulvis; stipite albo vel albicante; sporis luteis, 10 × 8.

Hab. in silvaticis in Bavaria.

10. **Russula albella** Peck, 50 Rep. p. 101 (1897). — Pileo tenui, fragili, sicco, plano v. centro subdepresso. levi v. margine obscure striato, typice albo, subinde roseo-tincto; carne alba, sapore dulci; lamellis integris, albis; stipite æquali solido v. intus spongioso, albo; sporis albis, globosis, 7 μ. diam. 166

Hab. in silvis frondosis, ad terram siccam, Port Jefferson Amer. bor. — Affinis *R. lacteæ.*

11. **Russula ochrophylla** Peck, 50 Rep. p. 100 (1897). — Pileo firmo, convexo, dein expanso, sæpe centro depresso. levi v. senio vix margine striatulo purpureo v. atro-purpureo; carne alba, rubente sub cuticula adnata, sapore acri; lamellis integris, paucis furcatis, subdistantibus, adnatis, initio flavidis, demum ochraceis, interstitiis sæpe venosis; stipite æquali v. subæquali solido v. centro spongioso, rubescente v. roseo; sporis ochraceo-fulvis globosis, verruculosis, 10 μ. diam. 167

Hab. in graminosis sub Quercubus Menands Amer. bor. — Pileus 5-10 cm. lat.; stipes 4-7 cm. long., 12-20 mm. cr. — Affinis *R. drymeiæ* Cooke. — Adest var. *albipes.*

12. **Russula pusilla** Peck, 50 Rep. p. 97 (1897). — Pileo tenui subplano v. leviter umbilicato-depresso, glabro margine striatulo, rubro, subinde centro saturatiore, pellicula tenui separabili; carne alba, sapore acri; lamellis latis, subventricosis, subdistantibus, adnatis v. leviter rotundatis, albis, demum (in sicco) flavido-ochraceis; stipite brevi, intus solido v. spongioso, albo; sporis leviter flavo-tinctis, 7 μ. latis. 168

Hab. ad terram nudam in silvis Port. Jefferson Amer. bor. — Pileus 2,5 cm. lat., stipes 12-24 mm. long., 4-6 mm. cr. — *R. puellari* affinis.

13. **Russula anomala** Peck, 50 Rep. p. 99 (1897). — Pileo tenui, fragili, 169
subplano v. centro depresso, pellicula nec viscida nec separabili, margine distincte striato, albo; carne alba, sapore acri; lamellis tenuibus, subconfertis, adnatis, integris v. rarius dimidiatis, altis, siccis sporis pruinatis; stipite æquali, intus solido v. spongioso, albo; sporis subglobosis, 7-8 μ. diam.

Hab. ad terram uliginosam sub arboribus, Port Jefferson Amer. bor. — Pileus 3-4 cm. lat.; stipes 3-4 cm. long., 6-8 mm. cr. — Affinis *R. fragili.*

CANTHARELLUS Adans. — Syll. V, p. 482 IX, p. 63, XI, p. 32. 170

1. **Cantharellus fuscipes** Bres. Hedw. 1896, p. 277. — Pileo subreniformi e convexo depresso, glabro, membranaceo, pellucide striato, lutescente, 3-5 mm. lato; lamellis paucis, 6-8, distantibus, venoso-conjunctis, adnato-subdecurrentibus v. subrotundato-adnatis, acie obtusa, concoloribus, stipite excentrico, deorsum fuscidulo, pruinato, 3 mm. longo, $^1/_2$ mm. crasso, curvato; sporis subellipticis, luteolis, 8-11 × 5-6; basidiis clavatis, 25-30 × 7-8.

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

2. **Cantharellus? spathuliformis** P. Henn. Hedw. 1897, p. 104. — 171
Pileo membranaceo, subgelatinoso, pellucido, spathulato, stipitato, miniato, levi, glabro, 7-13 mm. longo, 4-8 mm. lato; stipite cylindraceo, gracili, æquali, pruinoso, concolori, 8-10 mm. longo, 1 mm. crasso; plicis decurrentibus, distantibus, anastomosantibus, concoloribus; basidiis clavatis; sporis globosis, 3-3$^1/_2$ μ. hyalinis.

Hab. ad truncos? pr. Blumenau Brasiliæ (Ule).

3. **Cantharellus roseolus** Britz. Hymen. Kunde III, 1887, p. 7, fig. 19. 172
— Pileo opaco, luteo-roseolo; carne fulva, intus carneo-albida, spongiosa, fragili; lamellis crassis, venosis, ochraceo-roseolis; stipite pileo concolori; sporis oblongo-rotundis, non acuminatis, albis, 12 × 8.

Hab. in silvis pr. Epagny in Alpibus.

4. **Cantharellus membranaceus** De Seyn. Rech. Champ. Congo fr. 1897, 173
I, p. 11. — Stipite cavo, basi bulbilloso, levi, 14-15 mm. longo; pileo membranaceo infundibuliformi, elongato, levi, margine undulato pellucido, ochraceo sordescente, exsiccato nigrescente, 2-2$^1/_2$ cm. crasso; lamellis rectis, inæqualibus, decurrentibus, ceraceis, acie obtusa, subdistantibus, paucis dichotomis, concoloribus; hymenio homogeneo; sporis non visis.

Hab. ad cortices? in regione Kongolana gallica.

5. **Cantharellus congregatus** (Pat.) Sacc. et Syd. *Dictyolus congregatus* 174
Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 108. — Pileo orbiculari, convexo-plano dein depresso, postice inciso, 5-7 mm. lato, tenui, parce radiatim sulcato, glabriusculo; stipite brevi, circ. $1^1/_2$ mm. longo, exacte laterali v. obsoleto; lamellis crassiusculis, distantibus, simplicibus, rectis v. crispatis, obtusis, interstitiis levibus, basidiis claviformibus, 4-sporis, 20-25 × 8-10; cystidiis nullis; sporis hyalinis, ovoideo-cylindraceis, levibus, 10 × 4-5; contextu tenui, membranaceo.

Hab. in ramulis emortuis, Java.

6. **Cantharellus parvus** Otth ap. Trog, Mitth. nat. Gesell. Bern. 1857, 175
p. 36. — Pileo infundibuliformi, excavato, fibroso-squamoso, brunneo-cinereo, 12-15 mm. lat.; stipite tenui, griseo-flavido, torto, sulcato, farcto, vix 2-3 cm. alto; lamellis pliciformibus, vix prominentibus, flavidis; carne fungi cinereo-flavida, laxa.

Hab. ad terram in Bremgartenwald Helvetiæ.

ARRHENIA Fr. — Syll. V, p. 498.

1. **Arrhenia cupuliformis** P. Henn. Fungi camerun. I, in Engl. Jahrb. 176
XXII, 1895, p. 96. — Pileo membranaceo, tenui (subgelatinoso, teste Dusén) cupulato, radiato-sulcato subplicatoque, albido, 3-4 mm. diam., margine subrepando, contextu pseudo-parenchymatico; venis striiformibus, simplicibus, interdum subramosis, paucis, valde distantibus, concoloribus; stipite centrali, stricto, tenui, pallido, subtiliter villosulo, ca. 6-8 mm. longo, basi vix incrassato; sporis ovoideis v. subfusoideis, hyalinis, 6-4 μ; basidiis clavatis, 5 μ. latis.

Hab. ad truncos putres, Kamerun (Dusén).

CAMPANELLA P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 95. (Etym. a *campana*). — Pileus membranaceus; hymenium subreticulatum inferum, lamellarum loco venis vel costis anastomosantibus. Sporæ pallidæ subglobosæ; basidia subclavata. — *Marasmio* et *Arrheniæ* affinis.

1. **Campanella Büttneri** P. Henn. l. c. — Pileo membranaceo, ver- 177
tice porrecto stipitato, galeiformi v. auriformi, subcampanulato, tessellato-subverrucoso, margine subundulato, albido, 5-11 mm. diam.; hymenio costato-reticulato, venis anastomosantibus, pallido; stipite excentrico, brevi, levi glabroque, tereti, ca. 1 mm. longo, 0,5 mm. crasso, farcto, subflavo; sporis subglobosis, granulosis, hyalino-subflavescentibus, 7-9 μ.; basidiis clavatis, 21-26 × 6-8 μ.

Hab. ad ligna putrida, Togo (Buettner) et Kamerun (Dusén).

MARASMIOPSIS P. Henn. in Engler u. Prantl, Natürl. Pflanzenfam. 1898, p. 230. (Etym. a *Marasmius* et *opsis*, facies). A *Marasmio* stipite medio annulo obliquo incompleto cincto recedit.

1. **Marasmiopsis subannulatus** (Trog) P. Henn. l. c. — *Marasmius subannulatus* Trog in Syll. V, p. 504. 178

Hab. in Helvetia gregarius.

MARASMIUS Fr. — Syll. V, p. 503, IX, p. 65, XI, p. 32.

1. **Marasmius Clementsianus** Sacc. et Syd. *Marasmius fulviceps* Clem. Bot. Survey of Nebraska IV, Lincoln. 1896, p. 20, nec Berk. — Pileo convexo-campanulato, dein convexo v. subapplanato, membranaceo, valde radiato-sulcato, rugoso, glabro, umbonato, fulvo-ferrugineo; stipite medulloso, flexuoso, sursum spiraliter tortuoso, levi, nitido, brunneo, apice pallidiore; lamellis adnexis, anastomosantibus, distantibus, 15-20, margine flexuoso, obscure ochroleucis; sporis hyalinis, fusoideis, 18-20 × 5. 179

Hab. in foliis emortuis, Nebraska Amer. bor. — Pileus 5-15 mm. latus; stipes 4-6 cm. longus, $^1/_2$-1 mm. crassus. — *M. Schweinfurthiano* P. Henn. affinis.

2. **Marasmius griseo-badius** Pat. Bull. Soc. Myc. de Fr. 1896, p. 133. — Solitarius vel gregarius, minimus; pileo 1 mm. lato, applanato, orbiculari, membranaceo, sordide griseo-badio, profunde sulcato, pellicula ex cellulis ovoideis, 20-25 × 10-12 μ. fuscis exquisite muriculatis composita tecto; lamellis albis, 8-10, sat confertis, integris, acie obtusis, stipite adnexis; stipite 3-5 mm. alto, tenuissimo, glabro, atro-brunneo, nitente, apice pallido, fere pellucido. 180

Hab. in cortice arborum, Tonkin (Bon).

Marasmius lilacinus P. Henn. in Engl. Jahrb. XXIII, 1896, p. 283. — Pileo membranaceo, convexo, umbilicato, striato-sulcato, violaceo 4-6 mm. diam.; stipite capillari, glabro, subnitente, concolori, subfistuloso, $1\,^1/_2$-$2\,^1/_2$ cm. longo; lamellis paucis, ca. 12, distantibus, in collarium liberum postice conjunctis, angustis, pallidis v. pallide violaceis. 181

Hab. ad corticem Fici in ins. Upolu ins. samoëns. (Weber). — *M. rhodocephalo* Fr. affinis.

4. **Marasmius minutulus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XX, 1895, p. 100. — Pileo membranaceo, tenui, convexo-explanato, medio papillato, obtuso v. conico, atro, radiato-subsulcato, brunneo, margine repando, usque ad 2 mm. diam.; stipite corneo, atro-brunneo, arcuato-curvato, tenui, circiter 2 mm. longo, basi 182

incrassato, subvilloso, nigro; lamellis adnatis, paucis, 4-7, partim furcatis, flavo-brunneis.

Hab. ad ramos putres, Kamerun (Dusén).

5. **Marasmius barombiensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 99. — Pileo membranaceo, campanulato, umbilicato, plicato, sulcato, margine tenui, undulato, subrepando, inflexo, albido, centro subflavo, usque ad 1 cm. alto, 1 $^1/_2$-2 cm. lato; stipite corneo, fistuloso, gracili, substriato, levi glabroque, atrofusco, apice pallidiore, basi bulboso-incrassato, albo-tomentoso, usque ad 7 cm. longo, 1 mm. crasso; lamellis subsinuoso-adnatis, inæquilongis, distantibus, angustis. 183

Hab. ad truncos putrescentes, Kamerun (Dusén).

6. **Marasmius rufo-brunneus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 99. — Pileo membranaceo, campanulato, dein subexplanato, obtuse umbonato v. subumbilicato, dense radiato-sulcato, margine repando, rufo-brunneo, 2-6 cm. diam.; stipite fistuloso, subcorneo, striato, levi glabroque, rufo-brunneo, tereti v. subcompresso contortoque, basi bulbilloso-incrassato, tomentosulo; lamellis adnatis decurrentibus, subdistantibus, inæqualibus, pallidis, lanceolatis; sporis oblongis, basi apiculatis, hyalinis, 6-7 × 3 μ. 184

Hab. ad folia putrida, Kamerun (Zenker et Staudt).

7. **Marasmius favoloides** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 99. — Pileo membranaceo, convexo-explanato, centro subumbonato, striato-venosulo, levi, pallide lilacino, margine tenui, 1 $^1/_2$-2 cm. diam.; stipite corneo, fistuloso, gracili, levi glabroque, interdum contorto, brunneo, superne pallido, 2 $^1/_2$-7 cm. longo, 1 mm. crasso; lamellis adnatis, interdum decurrentibus, angustis, subdistantibus, undulatis, venoso-reticulatis, anastomosantibus, pallidis; sporis ellipsoideis, hyalinis, 5-6 × 3-4 μ. 185

Hab. ad folia putrida, Kamerun (Zenker et Staudt).

8. **Marasmius atro-albus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 98. — Pileo tenui membranaceo, campanulato, centro depresso, radiatim sulcato v. subplicato, nudo, niveo, 1-1 $^1/_2$ cm. diam.; stipite setiformi, fistuloso, corneo, atro v. atrobrunneo, apice incrassato, levi glabroque, subnitenti, 2 $^1/_2$-3 $^1/_2$ cm. longo, $^1/_2$-1 mm. crasso; lamellis postice in collarium conjunctis, adnatis, 14-18, valde distantibus, subæquilongis, interdum anastomosantibus angustissimis, albis; sporis ovoideis, 3-4 × 3 μ.; basidiis clavatis. 186

Hab. ad ligna putrida, Kamerun (Zenker et Staudt).

9. **Marasmius Zenkeri** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 98. — Gregarius; pileo submembranaceo-carnoso, convexo-plano, umbonato, radiato-sulcato subplicatoque, 3-7 cm. diam., violaceo-cinereo, umbone subcyaneo, brunneolo, margine tenui, subrepando; stipite gracili, interdum contorto, usque ad 17 cm. longo, 2-4 mm. crasso, tereti, fistuloso, glabro levique, subnitenti, flavo-brunneo, basi subincrassato, pallide tomentoso; lamellis valde distantibus, postice ventricosis, ad marginem angustioribus, inæquilongis, adnexis, non decurrentibus, subconcoloribus. 187

Hab. ad ligna et folia putrescentia, gregatim, Kamerun (Zenker et Staudt). — Edulis.

10. **Marasmius discoideus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 96. — Pileo campanulato disciformi-explanato, 2 mm. diam., radiato-sulcato, ruguloso, centro depresso umbilicato venoso, sulcato, albido; lamellis paucis, 6-8, triquetris, postice conjunctis, latis, valde distantibus, undulatis, crassis, pallidis; stipite setiformi, corneo, nigro, nitente 1-2 cm. longo, levi glabroque. 188

Hab. inter folia putrescentia in silvis, Kamerun (Zenker et Staudt).

11. **Marasmius Dusenii** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 100. — Pileo membranaceo, convexo-planiusculo, vinoso, centro umbilicato atrosanguineo, radiato-striato, setis longis obscurioribus, adpressis tecto, margine radiato-ciliato, 2-3 $^1/_2$ mm. diam.; stipite gracili, setiformi, torto, compresso, fusco-brunneo, villoso, 3-4 cm. longo, vix 0,5 mm. crasso; lamellis liberis, plus minus confertis, subventricosis, pallidis; sporis subglobosis v. ellipsoideis, 5-6 × 4-5; cystidiis clavatis. 189

Hab. ad petiolos et alia fragmenta vegetabilia, Kamerun.

12. **Marasmius conico-papillatus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 100. — Pileo membranaceo, campanulato-convexo, dein explanato, centro umbilicato-papillato, papilla conico-subacuta, atrobrunnea, radiato-sulcato, albo, 2-3 mm. diam.; lamellis collario libero, distantibus, 6-8, latis, pallidis; stipite setiformi, tenaci, glabro, brunneo, nitido, 3-5 cm. longo; mycelio setiformi concolori. 190

Hab. ad folia putrida, Kamerun.

13. **Marasmius Friesianus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 100. — Pileo membranaceo, campanulato, medio umbilicato-papillato, papilla punctiformi, atra, sulcato-pli- 191

cato, rufo-brunneo, 2-4 mm. diam.; stipite corneo, fistuloso, filiformi, brunneo v. atro-brunneo, levi glabroque, basi subincrassato atro, circ. 2 cm. longo; lamellis subliberis, æquilongis, distantibus, 10-20, latis, albidis; sporis oblique ovoideis, basi apiculatis, 1-3-guttulatis, hyalinis, 9-11 × 6-8 μ.

Hab. ad truncos putres, Kamerun (Dusén, Zenker et Staudt).

14. **Marasmius roseolus** P. Henn. Fungi camerun. I, in Engl. Jahrb. 192
XXII, 1895, p. 98. — Pileo membranaceo, campanulato, radiatim sulcato subplicatoque, centro venosulo, umbonato tomentosulo-pruinoso, margine repando, subcrenato, roseo, circiter 1½ cm. diam., stipite setiformi, corneo, atro-brunneo, levi glabroque, subfistuloso, 5-7 cm. longo, 1 mm. crasso; lamellis annulari-adnatis, valde distantibus (10-15), latis, ventricosis, subæqualibus, sinuoso-crenatis, pallidis; sporis ellipsoideis, hyalinis, basi apiculatis, 7-8 × 4-5 μ.

Hab. ad ligna putrescentia, gregatim, Kamerun (Zenker et Staudt). — *M. rhodocephalo* affinis, sed differt pileo tomentosulo et colore.

15. **Marasmius subrhodocephalus** P. Henn. Fungi camerun. I, in Engl. 193
Jahrb. XXII, 1895, p. 97. — Pileo membranaceo, campanulato, flavo-rufo, obscuriore striato, radiato-sulcato subplicatoque, centro venuloso, interdum subumbonato v. subdepresso, 1-2 cm. diam.; stipite setiformi, fistuloso, tereti, atro-brunneo, levi glabroque, subnitenti, apice incrassato, 3-4 cm. longo, ca. 1 mm. crasso; lamellis annulari-adnatis, valde distantibus, paucis (12-16) æquilongis, ventricosis, pallidis; basidiis clavatis; sporis subglobosis, hyalinis.

Hab. ad ligna putrida, Kamerun (Zenker et Staudt).

16. **Marasmius Staudtii** P. Henn. Fungi camerun. I, in Engl. Jahrb. 194
XXII, 1895, p. 97. — Pileo campanulato, centro umbilicato, subpapillato, levi, flavo, radiato-sulcato plicatoque, flavo-cinereo, sulcis cyanescentibus, margine repando-undulato, tenui, atro, 1½-2 cm. lato; lamellis in collarium liberum postice conjunctis, latis lanceolatis, distantibus, cinereo-flavescentibus, inæquilongis; stipite gracili, corneo, levi glabroque, atro-brunneo-fistuloso, basi bulbilloso, griseo-tomentoso, 5-6 cm. longo, 1 mm. crasso.

Hab. in silvis, Kamerun. (Zenker et Staudt). — Var. **pallida** P. Henn. l. c. — Pileo griseo-pallido, stipite flavo-brunneo. — In Kamerun.

17. **Marasmius melanopus** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 195
1895, p. 36, tab. 1, fig. 2. — Pileo membranaceo, convexo, glabro,

non striato, purpureo-griseo; stipite gracili, cavo, glabro levique, nigro, nitido; lamellis adnatis, subdistantibus, latis, purpureo-griseis; sporis obovoideis, apiculatis, 5-6 × 2 $^1/_2$.

Hab. in foliis vetustis insititius, Ohio Amer. bor. — Pileus 4-6 mm. diam.; stipes 2-4 cm. longus.

18. **Marasmius rhodocephalus** Fr.-Sacc. Syll. V, p. 552. — Var. **major** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 97. — Pileo campanulato, vertice umbonato, radiato-sulcato, margine repando, 15-18 mm. diam., violaceo-incarnato; lamellis in collarium liberum postice conjunctis, latis, lanceolatis, æquilongis, valde distantibus, pallidis; stipite setiformi, glabro, nitido, atro-brunneo, 4-5 cm. longo. 196

Hab. in foliis, caulibus etc. putridis, Kamerun (Dusén).

19. **Marasmius cantharelloides** P. Henn. Hedw. 1897, p. 207. — Pileo tenuiter membranaceo, campanulato, explanato, radiato, sulcato, vertice venoso, ca. 2 cm. diametro, sicco subcoccineo; pedicello centrali, subcorneo, fistuloso, levi glabroque, subbrunneo, nigricante, ca. 3 $^1/_2$ cm. longo, ca. $^1/_3$ mm. crasso, interdum compresso subtortoque; lamellis pliciformibus, paucis (6-8), valde distantibus, adnatis, tenuibus, æquilongis, pallidis; sporis inconspicuis. 197

Hab. ad folia putrescentia Melastomacearum in silva pr. St. Catharina Brasiliæ (Ule).

20. **Marasmius kroumirensis** Pat. Cat. rais. pl. cell. Tunisie. 1897, p. 32. *(Androsaceus).* — Solitarius; pileo hemisphærico dein explanato, 1-2 mm. lato, leviter umbonato, fusco, tenui, opaco, 5-6 radiato-sulcato, ambitu sinuato, cute pilei ex cellulis subglobosis, fuscis, 7-10 μ. altis, verrucosis composita; lamellis albidis, tenuibus, distantibus, paucis (7-8), utrinque acutis, stipite adnatis, æqualibus; stipite tereti, filiformi, rigido, 7-12 mm. longo, glaberrimo, brunneo-rufescenti. 198

Hab. in foliis deciduis putridis in Tunisia. — *M. Buxi* Fr. et *M. hygrometrico* Brig. affinis.

21. **Marasmius lilacino-striatus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 99. — Pileo-convexo-applanato, membranaceo, centro subcarnosulo lilacina zona pallidiore cincto, glabro-levique, radiatim lilacino-striato, interdum subruguloso, 1-2 cm. diam.; stipite fistuloso, subcorneo, tenaci, substriato, sæpe late compresso, rufo-brunneo, tomentosulo-pruinoso, 1 $^1/_2$-4 cm. longo, 1-2 mm. crasso; lamellis sinuoso-adnatis, dense confertis, inæquilongis, subangustis, pallidis. 199

Hab. ad ligna putrida, Kamerun (Zenker et Staudt).

22. **Marasmius nocticolor** De Seyn. Rech. Champ. Congo fr. 1897, 1, p. 24, t. III, fig. 23-27. — Pileo membranaceo umbonato levi, fuligineo nigricante; stipite rigido, pleno, decolorante, 14-15 mm. alto; lamellis strictis confertis, inæqualibus, vix decurrentibus, decolorantibus; cystidiis fusiformibus; sporis non visis. 200

Hab. ad folia adjecta pr. Lambaréné in regione Kongolana gallica.

23. **Marasmius calopus** (Pers.) Fr.-Sacc. Syll. V, p. 525. — Var. **jaluitensis** P. Henn. Notizbl. Königl. Bot. Gart. u. Mus. Berlin. 1897, N. 7, p. 227. — Pileo membranaceo, lento, albido, explanato centro depresso, brunneolo, radiatim plicato-rugoso, margine tenui inciso, interdum crispulo, 1-3 cm. diam.; stipite corneo, subfistuloso, atro-brunneo, levi, glabro, curvulo, 1-2 cm. longo, 1-2 mm. crasso, basi pallide rufo, haud incrassato; lamellis sinuoso-adnatis, late ventricosis, interdum crispulis, albidis, basi venosis, distantibus, pallidis; sporis ovoideis, hyalinis, 4-5 μ. long. 201

Hab. ad ligna vetusta, Marshall-Inseln.

24. **Marasmius repens** P. Henn. Engl. Jahrb. XXIII, p. 548. — Pileo membranaceo, convexo, explanato, centro depresso, levi glabroque, margine sinuoso-crenato, rufo-badio, 1-2 $^1/_2$ mm. diam.; lamellis coloratis, distantibus, paucis (6-8), ventricosis, pallidis; stipite setiformi, corneo, rigido, atro, glabro, subnitente, circ. 1 cm. longo, e mycelio repente rhizomorphoideo, rigidulo, atro, ramoso oriente. 202

Hab. inter folia decidua in Camerunia (Zenker). — *M. trichorrhizo* similis.

25. **Marasmius Baumanni** P. Henn. Engl. Jahrb. XXIII, p. 548. — Pileo membranaceo, convexo-explanato, pallide flavo, plicato, centro depresso-umbilicato, papillato, atro, 3-5 mm. diam.; stipite corneo, filiformi, rigido, brunneo, nitente, basi obscuriore, 0,5-2 cm. longo, 0,3 mm. crasso; lamellis coloratis, distantibus, paucis, acie subincrassatis, pallide flavescentibus; mycelio rhizomorphoideo, filiformi, castaneo. 203

Hab. in ramis putridis in Togo Afr. occ. (G. Baumann). — *M. Rotulæ* Fr. affinis.

26. **Marasmius gracillimus** P. Henn. Engl. Jahrb. XXIII, p. 548. — Pileo campanulato explanato, tenui membranaceo, albo, radiatim striato, centro umbilicato, papilla atro-violacea ornato, 1-1 $^1/_2$ mm. diam.; stipite tenuissimo, capilliformi, torto, glabro, levi, pallide 204

brunneo, nitente, 1 $^{1}/_{2}$-2 $^{1}/_{2}$ cm. longo; lamellis subcoloratis, distantibus, paucis (5-7), integris, angustis, pallidis; mycelio rhizomorphoideo, capillari, brunneo, nitente.

Hab. in foliis putridis in Togo Afr. occ. (G. Baumann). — *M. Friesiano* P. Henn. affinis.

27. **Marasmius ornatus** P. Henn. Engl. Jahrb. XXIII, p. 548. — 205
Pileo membranaceo, campanulato, vertice subglabro v. venuloso, gilvo, plicato-sulcato, sulcis dichotomis atro-violaceis, costis pallidis subflavescentibus, margine undulato, subflavo, 1-2 cm. lato, 1-1 $^{1}/_{2}$ cm. alto; stipite corneo, fistuloso, gracili, flavo-brunnescenti, levi glabroque, subnitenti, basi strigoso-piloso, pilis rigidis, ferrugineis 4-5 cm. alto, 1-1 $^{1}/_{2}$ mm. crasso; lamellis subliberis v. postice adnatis, distantibus, inæquilongis, ventricosis, pallidis v. pallide-violaceis; sporis ellipsoideis, levibus, hyalinis, 6-7 × 4-5.

Hab. ad folia putrida in Camerunia (Zenker).

28. **Marasmius cervinus** P. Henn. Engl. Jahrb. XXIII, p. 551. — 206
Pileo tenui, membranaceo, pellucido-cervino, convexo-explanato, medio depresso, subumbilicato, atro-brunneo, radiatim sulcato subplicatoque obscuriore, 9-12 mm. diam.; stipite corneo, fistuloso, brunneo, velutino-tomentoso, ad basim atro, 12-15 mm. longo, vix 1 mm. crasso; lamellis rotundato-adnatis, subdistantibus, inæquilongis, subventricosis; sporis non visis.

Hab. in ligno putrido et foliis deciduis in Camerunia (Staudt).

29. **Marasmius subiculosus** Pat. Journ. de Bot. 1897, p. 338 *(Androsaceus)*. — 207
Pileo convexo, 3-6 mm. diam., rubro, ruguloso, ad marginem striato, sicco tenui, pellicula e cellulis minutis rotundatis composita; lamellis distantibus, integris inæqualibusque, adnexis, albis; stipite filiformi, sicco, tenaci, griseo-brunneo, apice albo, toto albo-pulverulento, e mycelio albo membranaceo v. floccoso oriundo.

Hab. in ramulis putridis in Tonkin.

30. **Marasmius togoensis** P. Henn. Engl. Jahrb. XXIII, p. 551. — 208
Minutus; pileo campanulato-plano, orbiculari, 3-4 mm. diam., medio subdepresso, radiatim striato sulcatoque, rugoso, fusco; stipite tenui, corneo, brunneo-nigricanti, levi, 2-2 $^{1}/_{2}$ mm. longo; lamellis coloratis, distantibus, latis, griseis; sporis haud conspicuis.

Hab. in ramentis siccis in Togo Afr. occ. (Baumann).

31. **Marasmius plicatulus** Peck, Bull. Torr. Bot. Cl. 1897, p. 142. — 209
Pileo submembranaceo, convexo v. subcampanulato, glabro, sicco plerumque sulcato-striato, dilute castaneo v. vinoso-rubro; lamellis

subdistantibus, postice angustatis, adnexis, albidis; stipite gracili, cavo, supra glabro, nitido, nigrescenti-brunneo, apice rubro, basi villo vel tomento copioso albido tecto; sporis subellipticis uno fine apiculatis, alterum versus subattenuatis, $10\,^1/_2$-13 × 5-$6\,^1/_2$.

Hab. inter folia dejecta in California (Mc. Clatchie). — Pileus $1\,^1/_2$-$2\,^3/_4$ cm. latus; stipes $6\,^1/_2$-13 cm. longus, circiter 3 mm. crassus.

32. **Marasmius albo-marginatus** Clem. Bot. Survey of Nebraska, IV, Lincoln. 1896, p. 20. — Pileo minuto, solitario, membranaceo convexo, glabro, sulcato, purpureo, margine pallidiore; stipite nitido, glabro æquali, citrino; lamellis paucis, 7-8, adnatis, albis; basidiis 12-14 × 6-7; sporis 5 × 2-3, ovoideis. 210

Hab. ad terram umbrosam, Nebraska Amer. bor. — Pileus $1\,^1/_2$ mm. latus; stipes 1 cm. longus, $^1/_2$ mm. crassus.

33. **Marasmius auklandicus** P. Henn. Hedw. 1896, p. 304. — Pileo tenui membranaceo subtranslucente, campanulato, vertice papillato, striato plicatoque pallido-flavescente 3-5 mm. diametro; stipite tenui, curvato tereti vel subcompresso pruinoso, basi disciformi, albo, villoso, radiante, 3-6 mm. longo, vix 0,5 mm. crasso, pallido; lamellis distantibus, paucis (8-12) in collarium postice conjunctis, acie crassis, pallidis; sporis globosis, levibus, hyalinis 6-7 μ. 211

Hab. in ramis putridis Ohampo Novæ Zelandiæ (Haeusler).

34. **Marasmius gregarius** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 413. — Pileo submembranaceo, glabro, centro depresso v. late umbilicato, udo striatulo, badio v. pallide alutaceo, centro obscuriore; lamellis angustis, subdistantibus, adnatis, interdum ramosis, albidis; stipite brevi, gracili, inserto, cavo, flocculoso v. subpubescente, pallide badio, basim versus obscuriore; sporis subglobosis, fere 4 μ. latis. 212

Hab. gregarius ad lignum decorticatum, Kentucky, Amer. bor. — Pileus 1-$1\,^1/_3$ cm. latus; stipes 1-2 cm. longus, 1 mm. crassus.

35. **Marasmius hirtipes** Clem. Bot. Survey of Nebraska IV, Lincoln. 1896, p. 21. — Pileo plano-convexo, membranaceo, vix umbilicato, leniter radiato-sulcato, glabro, fulvo; stipite elongato, filiformi, cavo, pilis albis v. fulvis obsesso, obscure rufo; lamellis subnumerosis, adnatis, linearibus, albis v. dilute luteis; sporis ellipsoideis, minute biguttulatis, 7 × 4. 213

Hab. in terra? in Nebraska Amer. bor. — Pileus 3-7 mm.; stipes 3-8 cm. longus, $^1/_2$-$^3/_4$ mm. crassus.

36. **Marasmius papillosus** Clem. Bot. Survey of Nebraska IV, Lincoln. 1896, p. 21. — Pileo conico-papillato, dein campanulato v. expla- 214

nato, membranaceo, striato glabro, ochroleuco v. ochraceo; stipite æquali, cartilagineo, superne pruinoso, inferne dense lanato, sordide albo v. ochroleuco; lamellis paucis, adnexis, albis; sporis ellipsoideis, 6 × 4.

Hab. in lignis putrescentibus, Nebraska Amer. bor. — Pileus $^3/_4$-$1\,^1/_2$ cm. latus; stipes $1\,^1/_2$-$2\,^1/_2$ cm. longus, 2 mm. crassus.

37. **Marasmius Quercus** Britz. Hymen. Kunde II, 1896. p. 7, fig. 50. 215
— Pileo non nitente, ochraceo-albo; lamellis subconfertis, subadnexis, interdum rotundatis v. liberis ochraceo-albis; stipite 3-6 mm. crasso, sursum albido, deorsum luteo-brunneo v. violaceo-brunneo et fibroso-piloso, plerumque tortuoso vel compresso; sporis oblongo-rotundis, utrinque piriformibus, 10-12 × 4-6; odore alliaceo

Hab. ad folia quercina in silvis Bavariæ.

38. **Marasmius Englerianus** P. Henn. Pilze Ostafr. p. 59. — Pileo 216
tenui, carnosulo-membranaceo, convexo-explanato, centro umbilicato v. umbonato, glabro levique, flavo-rubro v. aurantiaco, radiato-substriato, $1\,^1/_2$-3 cm diam., margine tenui integro; stipite farcto, striato, basi subbulboso, flavo-ochraceo, velutino, 2-3 cm. longo, 2-4 mm. crasso; lamellis distantibus, adnatis subdecurrentibus, latis ventricosis, rufo-brunneis; sporis ellipsoideis, hyalinis, levibus, 6-8 × 4-5.

Hab. ad truncos in Africa tropica (Holst).

39. **Marasmius Volkensii** P. Henn. Pilze Ostafr. p. 59. — Pileo car- 217
nosulo, convexo-explanato, dein subumbilicato, subumbellifero v. centro depresso, orbiculari, pallido, levi glabroque, interdum subsulcato, 1-2 cm. diam.; stipite sæpe subclavato, fistuloso, tenaci, subfibroso, concolori, basi fusco sublignoso, radicanti, $1\text{-}1\,^1/_2$ cm. alto, circiter 2 mm. crasso; lamellis decurrentibus, distantibus, latis, crassiusculis, flexuosis, venosis, pallidis; sporis subellipsoideis v. ovoideis, uniguttulatis, subhyalinis, 5-6 × 4-5.

Hab. ad terram udam graminosam in Africa tropica (Volkens).
— *M. decurrenti* Mont. affinis.

40. **Marasmius maranguensis** P. Henn. Pilze Ostafr. p. 59. — Pileo 218
carnosulo, tenaci, obconico-campanulato, dein explanato, subrimoso, vertice obtuso, glabro, levi, $1\text{-}1\,^1/_2$ cm. lato, albo; stipite gracili interdum contorto flexuosoque, subsulcato, concolori, farcto, 3-5 cm. longo, 2 mm. crasso, basi vix incrassato; lamellis liberis, confertis, semilanceolatis, subæqualibus, pallidis; sporis oblique ellipsoideis v. ovoideis, hyalinis, intus subgranulatis, $5\text{-}6\,^1/_2 \times 4\,/_2\text{-}5\,^1/_2$; basidiis clavatis.

Hab. ad terram hortorum in Africa tropica (Volkens). — *M. globulari* Fr. affinis. — Edulis.

41. **Marasmius badiceps** Peck, Bull. Torr. Bot. Cl. 1897, p. 142; *Marasmius badius* Peck, Bull. Torr. Bot. Cl. 1895, p. 487 nec B. et C. — Pileo tenui convexo, 6-13 cm. lato, glabro, badio v. rubro-brunneo; lamellis angustis, subdistantibus, adnatis, albidis; stipite glabro, cavo, circiter $2\,^1/_2$ cm. longo, 2 mm. crasso, nigro-brunneo; sporis late ellipticis, 5 × 3. 219

Hab. ad frustula uda dejecta, Kansas Amer. bor. (Bartholomew).

42. **Marasmius subtomentosus** Peck, Bull. Torr. Bot. Club. 1895, p. 487. — Pileo tenui, primo subcampanulato, dein convexo v. subplano, margine vix striato, minute tomentoso-pubescente, griseolo v. rubro-griseo; lamellis latis, subdistantibus, liberis v. vix adnexis, ventricosis, colore pilei; stipite æquali v. basim versus leviter incrassato, inserto, sericeo-tomentoso, griseolo v. griseolo-brunneo, intus albo; sporis 10-13 × 5-$6\,^1/_2$. 220

Hab. ad radices graminum in sabulosis, Kansas Amer. bor. (Bartholomew). — Pileus 1-2 cm. latus; stipes fere $2\,^1/_2$ cm. longus, 2 mm. crassus.

43. **Marasmius Hungo** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 98. — Pileo submembranaceo, convexo-explanato, subumbonato, sulcato plicatoque, subruguloso, levi, subflavo, 3-4 cm. diam.; stipite subcavo, tereti, striato, interdum contorto, levi glabroque, $2\,^1/_2$-4 cm. longo, $1\,^1/_2$-3 cm. crasso, basi vix incrassato; lamellis postice adnexis, decurrentibus, late ventricosis, subconfertis, tenuibus, subflavis. 221

Hab. ad ligna putrida, Kamerun (Zenker et Staudt). Edulis.

44. **Marasmius Cyathula** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 96. — Pileo tenui, membranaceo, cyathiformi v. infundibuliformi, dense radiato-striato subsulcatoque, levi, 5-10 mm. lato, griseo-brunneo; lamellis subannulato-adnatis, postice conjunctis, subconfertis, angustis, inæquilongis, pallidis; stipite farcto, pallido, dein brunneolo, griseo-tomentosuio, 10-15 mm. longo, $^1/_2$ mm. crasso; sporis subglobosis, subhyalinis, minute flavescentibus, 4-5 μ. 222

Hab. ad folia putrescentia in silvis, Kamerun (Zenker et Staudt).

45. **Marasmius palmicola** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 102. — Pileo carnoso-membranaceo, plano depressove, obtuso, subplicato, striato, rugoso, margine tenui undulato, subrepando denticulatoque, primo griseo centro obscuriore, dein 223

pallido, $^1/_2$-2 cm. diam.; stipite fistuloso, sæpe compresso, glabro levique, postice sæpe incrassato, flexuoso, subcurvato, pallido, basi subincrassato, flavo-brunneo v. subaurantio, tomentosulo; lamellis adnatis, subdistantibus, inæquilongis, latis, sæpe flexuosis, albidis; sporis oblique ovoideis, apiculatis, hyalinis, uniguttulatis, 7-8 × 4-5 μ.; basidiis clavatis.

Hab. ad truncos putres, Kamerun (Dusén). — Var. **grisea** P. Henn. l. c. — Pileo cinereo, centro flavo-brunneo; stipite grisco, basi flavido; lamellis cinereis. Ad truncos putres, Kamerun (Dusén).

46. **Marasmius alliacioides** P. Henn. Fungi camerun. I, in Engl. 224
Jahrb. XXII, 1895, p. 95. — Pileo tenui, membranaceo, tenaci, subconvexo explanato, albo, vertice subpruinoso, margine radiato-striato, 10-15 mm. diam.; lamellis subliberis, confertis, angustis, inæquilongis, pallidis; stipite subcompresso, pallido, dein brunneo, griseo-pruinoso v. subtomentosulo, 10-15 mm. longo, vix $^1/_2$ mm. crasso.

Hab. ad folia putrescentia, Kamerun (Dusén).

47. **Marasmius citrinus** P. Henn. Fungi camerun. I, in Engl. Jahrb. 225
XXII, 1895, p. 96. — Pileo explanato, nummulariiformi, applanato-rotundato, centro subpapillato levi, glabroque, ca. 1 cm. diam. citrino; lamellis dense confertis, adnatis, angustis, inæquilongis, concoloribus; pedicello subcompresso, pruinoso, levi, citrino, 1 cm. longo, 1 mm. crasso.

Hab. ad ramos putrescentes in silvis, Kamerun (Zenker et Staudt).

48. **Marasmius congoanus** Pat. Bull. Soc. Myc. de France, 1895, 226
p. 85. — Pileo rubro, sessili, pendulo, orbiculari, 3-8 mm. diam., primo tomentoso, dein glabrescente, sulcato-pectinato; hyphis superficialibus, 4-5 μ. crassis, tenacibus, luteolis, valde elongatis; lamellis distantibus, inæqualibus, pallidioribus, glabris; cystidiis nullis.

Hab. ad ramos emortuos in regione Kongolana gallica (Dybowski).

49. **Marasmius eligmophyllus** De Seyn. Rech. Champ. Congo fr. 1897, 227
I, p. 22. — Pileo applanato, margine revoluto, membranaceo, pellucido, sordescente, secundum lamellas leviter striato, 7-8 mm. lato; stipite filiformi, plano, sordescente pallido, demum obscuriori, 18 mm. alto; lamellis liberis a stipite discretis, sed non collariatis, inæqualibus, distantibus, sinuosis, simulate ramosis; hymenio basidiis oblongis; cystidiis magnis, exsertis, mammiformibus, 40 μ. latis, instruoto; sporis hyalinis, ovoideis, 3-5 μ. long.

Hab. ad ramenta putrescentia pr. Talagouga in regione Kongolana gallica.

50. **Marasmius hymenofallax** De Seyn. Rech. Champ. Congo fr. 1897, I, pag. 18, tab. I, fig. 12-17. — Pileo membranaceo pellucido, umbonato expanso, levi, ochraceo et in exsiccato fuscescente, margine integro vix striatulo, 6-7 mm. lato; stipite levi, a mycelio albo araneoso parco orto, ochraceo, apice expallente, basi fuscescente, cavo, 7-9 mm. longo; lamellis albicantibus, pliciformibus, versus marginem pilei attenuatis, adnatis, subdistantibus, paucis incompletis cum integris anastomosantibus; hymenio cystidiis fusiformibus et cellulis oblongis levibus aut apice penicillatis latice flavescente impletis instructo, basidiis veris sporisque nullis. 228

Hab. ad ramos dejectos p. Lambaréné in regione Kongolana gallica.

51. **Marasmius pahouinensis** De Seyn. Rech. Champ. Congo fr. 1897, I, pag. 12. — Pileo campanulato, conico, levi, margine recto tenui subinvoluto, castaneo-lateritio, 1 cm. alto, $1^1/_2$ cm. crasso; stipite recto, levi, farcto, a basi sensim ad apicem attenuato, umbrino, sursum pallescente, roseo, 7 cm. longo, 2 mm. basi, 1 mm. apice crasso; lamellis confertis, rectis, inæqualibus, liberis, ad pilei marginem attenuatis, roseo-carneis; hymenio sterili. 229

Hab. ad folia et ramenta putrescentia pr. Talagouga in regione Kongolana gallica.

52. **Marasmius pandanicola** P. Henn. Notizbl. Königl. Bot. Gart. u. Mus. Berlin, 1897, N. 7, p. 228. — Pileo membranaceo, convexo-explanato, centro depresso, radiatim sulcato, levi, pallido, $2\text{-}3^1/_2$ cm. diam., margine tenui, integro v. subcrenato; stipite subexcentrico, fistuloso, tereti, striatulo, levi, $1\text{-}1^1/_2$ cm. longo, 1-2 mm. crasso, basi discoideo-incrassato, tomentosulo, pallido, curvato; lamellis adnatis, inæquilongis, distantibus, subventricosis, basi anastomosantibus, acie integris albis; sporis ellipsoideis vel ovoideo-ellipticis, basi oblique apiculatis, hyalinis, intus punctatis, $7\text{-}8^1/_2 \times 4\text{-}5$ μ., levibus; basidiis clavatis, 15-20 × 8-9. 230

Hab. ad truncos Pandani, Marshall-Inseln. — *M. Vaillantii* Fr. affinis.

53. **Marasmius petalocladus** De Seyn. Rech. Champ. Congo fr. 1897, I, p. 23. — Pileo membranaceo expanso, sulcato, levi, centro umbilicatulo, margine denticulato, flavo pallescente decolorante, 5-6 mm. lato; stipite gracili, recto, glabro nitente, cavo, æquali, ochroleuco pallescente, $2\text{-}2^1/_2$ cm. longo; lamellis albis, distantibus, 231

attingentibus anastomosantibus, plicis transversalibus conjunctis; cystidiis nullis; basidiis curtis; sporis parvis, pellucidis, ovoideis.

Hab. ad terram? pr. Lambaréné in regione Kongolana gallica.

54. **Marasmius pygmæus** P. Henn. Engl. Jahrb. XXIII, p. 548. — 232
Pileo membranaceo, campanulato-explanato, centro subdepresso, flavo, radiato-striato, levi, 2-3 mm. diam., gilvo; stipite capillari, cartilagineo, farcto, farinoso, subaurantiaco, $2^1/_2$-$3^1/_2$ mm. longo; lamellis adnatis, distantibus, ventricosis, flavescentibus.

Hab. in ramis putridis in Togo Afr. occ. (G. Baumann).

55. **Marasmius jodocodos** P. Henn. Engl. Jahrb. XXIII, p. 549. — 233
Pileo subovato-campanulato, membranaceo, vertice carnosulo, applanato, levi, glabro, atro-violaceo, radiatim sulcato-plicato, costis medio usque ad marginem dichotomo, margine crenato, undulato, 2 cm. alto latoque, lilacino; stipite compresso v. subtereti, torto, gracili levi glabroque, fistuloso, tenui, flavo-brunnescente, basi incrassato, circiter 10 cm. longo, 3-4 mm. crasso; lamellis liberis, subdistantibus, ventricosis, pallide lilacinis; sporis ellipsoideis, hyalinis, levibus, 6-8 × 3-4.

Hab. in foliis deciduis in Camerunia (Zenker).

56. **Marasmius subviolaceus** P. Henn. Engl. Jahrb. XXIII, p. 549. 234
— Pileo tenui-membranaceo, convexo, vertice glabro levique, interdum depresso, radiatim striato sulcatoque, pallide violaceo, 3-5 mm. diam.; stipite fistuloso, subcorneo, gracili, striato, subconcolore, 3-7 cm. longo, 2-3 mm. crasso, basi subincrassato; lamellis adnatis, subconfertis, pallidis; sporis ellipsoideis, levibus, hyalino-subflavescentibus, 6-8 × $3^1/_2$-4.

Hab. in ligno emortuo in Camerunia (Zenker).

57. **Marasmius violaceus** P. Henn. Engl. Jahrb. XXIII, p. 549. — 235
Pileo tenui-membranaceo, convexo-campanulato, vertice interdum applanato, radiato-striato, levi, glabro, 4-10 cm. diam., margine tenui, pulcre violaceo; stipite tereti, firmo, farcto, æquali, levi glabroque, violaceo, 3-5 cm. longo, 3 mm. crasso; lamellis adnatis, decurrentibus, sublanceolatis, subconfertis, basi interdum anastomosantibus, violaceo-subflavescentibus; sporis subglobosis, levibus, 3-5 μ. diam.

Hab. inter folia decidua in Camerunia (Zenker). — Sapor gratus.

58. **Marasmius Patouillardi** Sacc. et Syd. *Marasmius nigripes* Pat. 236
Journ. de Bot. 1897, p. 337, nec Schw. — Pileo albo, subglobuloso dein plano, tenui, membranaceo, striato, $^1/_2$-$2^1/_2$ cm. lato, opaco; sti-

pite gracili, 1 mm. crasso, $^1/_2$-1 $^1/_2$ cm. longo, subexcentrico, tenaci, nigro, sed albo-pruinato; lamellis non confertis, albis, subdecurrentibus, angustis, una alterave breviore immixta, non venoso-connexis; sporis hyalinis levibus, ovoideis, 7 × 5-6, guttula nitida præditis.

Hab. in ramulis putridis in Tonkin.

63. **Marasmius grandisporus** P. Henn. Engl. Jahrb. XXIII, p. 550. 237
— Pileo membranaceo-carnosulo, convexo-plano, levi, glabro, subplumbeo-cinerescente, 4-6 cm. diam., margine tenui obsolete striato crenatoque; stipite tereti, æquali, farcto, subfimbriato, pallido, 3-6 cm. longo, circiter 3 mm. crasso, basi subincrassato, subdiscoideo; lamellis adnatis, haud decurrentibus, subconfertis, ventricosis, crassis, pallidis; sporis levibus, subhyalinis, 18-21 μ., intus granulosis; basidiis oblongo-clavatis, 30-40 × 18-32; sterigmatibus 2-4, subulatis, subcurvatis, 9-11 × 4.

Hab. in ligno in Camerunia (Staudt).

64. **Marasmius pallidus** P. Henn. Engl. Jahrb. XXIII, p. 550. — 238
Pileo membranaceo, convexo-plano, centro umbonato, depresso, levi, glabro, albido, subcinerescente, 5 mm. ad 2 $^1/_2$ cm. diam.; stipite farcto, tenaci, tereti, levi, glabro, ad basim subclavato, sæpe curvato, pallido, 1-3 cm. longo, 2-3 mm. crasso; lamellis subconfertis, adnatis, decurrentibus, pallidis, angustis; sporis ellipsoideis, hyalinis, levibus, 1-guttulatis, 5-6 × 3 $^1/_2$-4.

Hab. in ligno emortuo in Camerunia (Zenker).

65. **Marasmius rufus** P. Henn. Engl. Jahrb. XXIII, p. 550. — 239
Pileo membranaceo-carnosulo, semiglobato v. campanulato, margine involuto, striato, levi, glabro, rufo, 1 $^1/_2$-4 cm. diam.; stipite farcto, firmo, tereti, torto, levi, glabro, concolori, 3-6 cm. longo, 3-5 mm. crasso; lamellis sinuoso-adnatis haud confertis, lanceolatis, pallidis; sporis ellipsoideis, levibus, hyalinis, subfuscidulis, 7-8 × 4-5.

Hab. in foliis deciduis in Camerunia (Zenker).

66. **Marasmius subcastaneus** P. Henn. Engl. Jahrb. XXIII, p. 550. 240
— Pileo membranaceo, campanulato-explanato, dein centro depresso, radiatim striato sulcatoque, margine tenui, interdum crenato-repando, 1 $^1/_2$-4 $^1/_3$ cm. diam., castaneo; stipite corneo, subfistuloso, badio v. atro, subcompresso, strigoso-tomentoso, æquali, tenui, circiter 1 $^1/_2$-2 $^1/_2$ cm. longo, 2-3 mm. crasso; lamellis adnatis, inæquilongis, subflexuosis, angustis, subconfertis, pallide badiis; sporis late ellipsoideis, 6-8 × 5-7, levibus, hyalino-subfuscidulis.

Hab. in ramis emortuis in Camerunia (Zenker).

67. **Marasmius bipindeensis** P. Henn. Engl. Jahrb. XXIII, p. 549. — 241
Pileo membranaceo, convexo-explanato, dein centro depresso, radiato-striato, isabellino, levi, 2-5 cm. diam.; stipite gracili, tenui, subcorneo, fistuloso, tomentosulo, ferrugineo, 4-10 cm. longo, 2 mm. crasso, æquali; lamellis adnatis, subconfertis, angustis, flavo-fuscidulis.

Hab. in foliis emortuis in Camerunia (ZENKER).

68. **Marasmius Sacchari** Wakker, Centralb. f. Bact. u. Par. II, 242
Abth. 1896, I, p. 44, c. fig. — Gregarius v. basi fasciculatus, variabilis, carnoso-membranaceus, persistens; pileo albo, late campanulato, dein sordide albo, plano v. cupuliformi 15 mm. diam.; lamellis albis, simplicibus v. bifurcatis; stipite centrali, albo, 15 mm. longo apice tubiformi basi villoso; hyphis albis; sporis hyalinis, continuis, irregulariter oblongis, utrinque attenuatis, rotundatis, 16-20 × 4-5.

Hab. in caulibus vivis Sacchari officinarum parasitans in Java.

69. **Marasmius plicatus** Wakker, De Ziekten van het Suikerriet op 243
Java, Leiden, 1898, p. 195. — Minutus, gregarius, persistens; pileo late campanulato cum excavatione centrali, plicato, membranaceo, brunneo, margine dilute ochraceo; stipite centrali filiformi, atro 1,2 cm. longo; hyphis albidis; lamellis paucis (7), simplicibus, membranaceis, dilute ochraceis; sporis continuis, hyalinis, ovoideis, basi acutis, apice rotundatis 6-8 × 4-5.

Hab. in foliis mortuis siccis Sacchari officinarum etiam in Bambusæ in Java.

70. **Marasmius discipes** P. Henn. Fungi camerun. I, in Engl. Jahrb. 244
XXII, 1895, p. 101. — Pileo subexcentrico, ad stipitem ex obliquo verticali, carnosulo-membranaceo, convexulo-applanato, rotundato, medio papillato, zonato, margine substriato, plus minus repando v. sinuoso, 5-11 mm. diam., albido; stipite concolori, levi, glabro, 4-9 mm. longo, basi disciformi, radiato-fibroso; lamellis adnatis, non decurrentibus, inæquilongis, confertis, angustis, pallidis; sporis cylindraceo-oblongis, hyalinis, levibus, 1-2-guttulatis, 4-6 × $1^1/_2$-2 μ.

Hab. ad truncos putres, Kamerun (DUSÉN).

71. **Marasmius excentricus** P. Henn. Fungi camerun. I, in Engl. 245
Jahrb. XXII, 1895, p. 101. — Pileo membranaceo, subcarnosulo, campanulato, dein concavo, applanato, medio depresso, striato-sulcato, levi, albido, usque ad $1^1/_2$ cm. diam.; stipite excentrico, brevi, curvato, concolori, glabro, levi, basi subbulbilloso, albo-tomentoso,

5-8 mm. longo, 0,5 mm. crasso; lamellis adnatis, omnino inæquilongis, subflexuosis, subdistantibus, pallidis; sporis oblique ovoideis, apiculatis, hyalinis, uniguttulatis, subgranulatis, 7-8 × 4-5 μ.

Hab. ad truncos putres, Kamerun.

72. **Marasmius cyphelloides** P. Henn. Hedw. 1897, p. 207. — Pileo 246
minutissimo, membranaceo, subgloboso-campanulato, squamis candidis, sericeis, adpressis, setiformibus, 3-3 $^1/_2$ μ. crassis, nec ramosis, nec septatis tecto, margine involuto, fimbriato, 0,5-1 mm. diametro; stipite subcentrali vel laterali, subcorneo, recurvato, rufobadio, 0,5 mm. longo; lamellis adnatis, distantibus, subventricosis, pallidis; sporis subglobosis, hyalino-flavidulis, levibus, 5-6 .

Hab. ad ramos siccos, pr. Itajahy Brasiliæ (Ule.). — Habitu externo *Cyphellam villosam* optime simulat.

73. **Marasmius paradoxus** P. Henn. Fungi camerun. I, in Engl. 247
Jahrb. XXII, 1895, p. 101. — Pileo subresupinato pleuropodostipitato, membranaceo, reniformi explanato-convexo, striato, plicato, ruguloso, 5-11 mm. diam., flavo-brunneo; stipite brevi, curvato, arcuato, excentrico, 1-3 mm. longo, corneo, atro-nitenti, levi glabroque; lamellis adnatis, paucis, 6-12, angustis, crassiusculis, distantibus, inæquilongis, concoloribus; sporis subglobosis, granulatis, hyalino-flavescentibus, 7-8. μ. diam.

Hab. in ramis putridis in Camerunia (P. Dusén).

74. **Marasmius sessilis** Pat. Bull. Soc. Myc. de Fr. 1896, p. 132. — 248
Pileo reniformi, membranaceo, tenui, resupinato, demum reflexo, puncto dorsali excentrico adfixo, levi, fusco-badio, 8-15 mm. lato, vix $^1/_2$ mm. crasso, pellicula ex cellulis erectis, claviformibus, 23-30 × 10 μ., inferne levibus, hyalinis, superne fuscis, grosse obtuseque corniculatis composita tecto; stipite nullo; hymenio albido v. pallidissime fuscidulo; lamellis 4-6, distantibus, 1 mm. latis, glaberrimis, rectis v. crispatis, interstitiis venoso-reticulatis; basidiis claviformibus, 25-30 × 6-8 μ.; cystidiis nullis; sporis hyalinis, ovoideis, deorsum attenuatis, 6-8 × 4-5.

Hab. ad ramulos emortuos, Tonkin (Bon).

75. **Marasmius auriformis** P. Henn. Hedw. 1897, p. 206. — Pileo 249
subresupinato, sessili, lateraliter affixo, subcampanulato, auriformi, pallido, glabro, levi, subpruinoso, ca. 12 mm. diam.; lamellis centro papilla subvelutina ornatis, radiantibus, inæquilongis, subdistantibus, acie incrassatis; sporis ovoideis v. subglobosis, basi apiculatis, levibus, hyalinis, 7-8 × 5-6.

Hab. ad ramos putrescentes pr. Blumenau Brasiliæ (Möller).

76. **Marasmius pleurotoides** P. Henn. Engl. Jahrb. XXIII, p. 551. 250
— Pileo tenui membranaceo, sessili, lateraliter affixo, spathulato, convexo, 3-4 mm. longo, 3-4 mm. lato, subsulcato, albo, levi; lamellis distantibus, paucis, ad basim decurrentibus, latis, albis, interstitiis subvenosis.

Hab. in ramis in Togo (Baumann). — *M. nidulo* Berk. affinis. 251

77. **Marasmius crispus** P. Henn. Engl. Jahrb. XXIII, p. 551. — Pileo tenui membranaceo, resupinato, lateraliter affixo, suborbiculari, explanato, radiatim sulcato subplicato, transverse rugoso, crispo, niveo, $1^1/_2$-2 cm. longo latoque, basi interdum breviter stipitato; stipite recurvo, pallido, villoso, basi subatro; lamellis decurrentibus, distantibus, latis, ventricosis, venoso-anastomosantibus crispis, pallidis; sporis subglobosis, 4-5 μ.

Hab. in ramis emortuis in Togo (Baumann).

78. **Marasmius Spegazzinii** Sacc. et Syd. Sic nominandus est *Marasmius Balansæ* Speg.-Sacc. Syll. XI, p. 35-, quum exstet anterior *M. Balansæ* Pat. 252

79. **Marasmius Wettsteinii** Sacc. et Syd. Sic nominandus est *Marasmius tenerrimus* Wettst.-Sacc. Syll. IX, p. 69-, quum exstet præcedens *M. tenerrimus* Berk. et Curt. 253

80. **Marasmius Curtisii** Sacc. et Syd. Sic nominandus est *Marasmius hæmatodes* Berk. et Curt.-Sacc. Syll. V, p. 568-, quum exstet anterior *M. hæmatodes* Berk., Sacc. Syll. V, p. 529. 254

Phæomarasmius Scherff. Hedw. 1897. p. 287 est, etiam sec. cl. Bresadola et P. Hennings, *Naucoria rimulincola* Lasch.

LENTINUS Fr. — Syll. V, p. 571, IX, p. 71, XI, 39.

1. **Lentinus castaneus** Ell. et Macbr. Bull. Lab. Nat. Hist. Jowa, III, 255
n. 4, 1896, p. 194. — Pileo sinuato-depresso, centro cupulato; margine late revoluto persistenter velutino, radiato-striato; stipite firmo, solido, sursum gradatim dilatato, 4-5 cm. longo, basi 5-6 mm., summo apice 9-10 mm. crasso, deuse velutino, castaneo, intus albo; lamellis castaneis, vix densis, plerumque æqualibus v. basi ramosis, marginem versus pilei interdum brevioribus, non denticulatis nec incisis, vix decurrentibus.

Hab. ad caudices emarcidos in Nicaragua. — *L. blepharodi* proximus.

2. **Lentinus magnus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 415. 256
— Pileo crasso, duro, convexo, centro subdepresso, glabro, sordide albo, areolis v. squamis latis tecto, margine involuto; carne albida;

lamellis latis, densis, crassis, leviter decurrentibus, acie dentatis v. laceratis, pallidis; stipite firmo, dūro, solido, squamoso, basi subincrassato, colore pilei; sporis oblongo-ellipticis, 8 × 4.

Hab. gregarius ad terram humosam, California (Mc Clatchie). — Pileus 16-20 cm. latus; stipes circiter 10 cm. longus, $2^1/_2$-3 cm. crassus.

3. **Lentinus Rivæ** Bres. Ann. R. Ist. Bot. Roma, VI, 1896, p. 177. 257
— Pileo carnoso-coriaceo e convexo-umbilicato infundibuliformi, albo-sericeo, squamis innatis, fuscis ornato, glabrescente, 5-7 cm. lato; stipite centrali v. excentrico, furfuraceo v. squamuloso-rimoso, solido, 3-5 cm. longo, 8-10 mm. crasso, fibroso, interdum annulato, annulo infero, membranaceo; lamellis attenuato-decurrentibus, confertis, angustis, acie integra, albis; sporis cylindraceo-subcurvulis, hyalinis, 8 × $2^1/_2$.

Hab. ad ligna, Baroda Somaliæ (Dr. Riva). — Habitu valde *L. tigrino* accedit, a quo statura majore, compactiore, lamellis acie integris, stipite valde fibroso et sporis distinguitur. Caro stipitis ita fibrosa ut sectio longitudinalis videatur villosa ex fibris manifestis. In speciminibus siccis color pilei et stipitis alutaceus, lamellarum fulvo-ochraceus.

4. **Lentinus Underwoodii** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 258
p. 414. — Pileo carnoso, tenaci, convexo v. subplano, glabro, albido, alutaceo v. pallide ochraceo, squamis areolatis, indistinctis, sæpe marginem versus evanidis; carne alba; lamellis modice confertis, decurrentibus, basi subconnexis v. anastomosantibus, acie subcrenatis, albidis, demum decoloribus; stipite firmo, duro, solido, excentrico, squamoso, colore pilei; sporis oblongis, 13-16 × 5-$6^1/_2$.

Hab. cæspitosus ad lignum Quercus, Alabama Amer. bor. (Underwood). — Pileus 8-16 cm. latus; stipes 4-8 cm. longus, fere $2^1/_2$ cm. crassus. *L. magno* affinis.

5. **Lentinus ventricosus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 259
p. 414. — Pileo carnoso, subplano, glabro, nitente, albo, margine involuto; carne albida; lamellis angustis, confertis, decurrentibus, acie serratis, albidis; stipite curto, crasso, ventricoso, levi, solido, basi abrupte angustato, annulato, albo, intus isabellino-tincto; sporis $10^1/_2$-13 × 5-$6^1/_3$.

Hab. ad terram (?) in Alabama Amer. bor. (Underwood). — Pileus 10-16 cm. latus; stipes 4-5 cm. longus, in parte ventricosa circiter 4 cm. crassus.

6. **Lentinus crateriformis** P. Henn. Fungi camerun. I, in Engl. 260

Jahrb. XXII, 1895, p. 95. — Pileo membranaceo-carnosulo, obconico, omnino infundibuliformi v. crateriformi, glabro levique, radiato substriato, griseo-flavescenti, margine tenui, subrevoluto, dein erecto, repando-inciso; lamellis angustis, subconfertis, ad marginem æquilongis, dein radiato-decurrentibus, cinereis; stipite concolori, glabro levique, basi discoideo-incrassato, pallido, 1-2 $^1/_2$ cm. longo, 2-3 mm. crasso; sporis subglobosis, levibus, subhyalinis, 4-5. μ.

Hab. ad ramos putres, Kamerun (Dusén).

7. **Lentinus Dybowskii** Pat. Bull. Soc. Myc. de France 1895, p. 85. 261
— Pileo cyathiformi, 3-5 cm. diam., 5 cm. alto, ochraceo, sub lente subtiliter furfuraceo, margine recurvato, angusto, sinuoso: stipite æquali, cylindraceo, 10-15 cm. longo, 8 mm. crasso, rubro-brunneo, apice squamuloso, spongioso, farcto, molli, intus albido, radicante; lamellis decurrentibus, angustissimis, parum confertis, albidis, mollibus, integris, non anastomosantibus.

Hab. ad fragmenta lignea dejecta in regione congoana gallica (Dybowski).

8. **Lentinus discopus** Pat. Bull. Soc. Myc. de France 1895, p. 86. 262
— Pileo infundibuliformi, glabro, pellucido, rubro, coriaceo, tenui, erecto, 2-3 cm. diam., 1 $^1/_2$ cm. alto; margine incurvato, sinuoso, dein expanso; lamellis incoloribus, angustissimis, $^1/_3$-$^1/_2$ mm., haud confertis, integris decurrentibus, inæqualibus; stipite glabrescente, cylindraceo, fibroso 1-3 cm. longo, 2-3 mm. crasso, basi bulbilloso et membrana discoidea villosa albida cincto.

Hab. ad truncos putridos in regione congoana gallica (Dybowski).

9. **Lentinus annulifer** De Seyn. Rech. Champ Congo fr. 1897, I, p. 25. 263
— Stipite brevi, deorsum incrassato, curvo, plano, striatulo, melleo-albicante $^1/_2$-1 cm. longo, annulo siccitate fuligineo prædito; pileo infundibuliformi, inæquali, margine involuto, levi, melleo-albicante maculis minutis fuligineis asperso, 3-5 cm. lato; lamellis concoloribus, siccitate rufescentibus, strictis, utrimque acutis decurrentibus inæqualibus, acie integerrima.

Hab. ad ligna in regione Kongoana gallica.

10. **Lentinus holumbrinus** De Seyn. Rech. Champ. Congo fr. 1897, 264
I, p. 24. — Stipite pleno basi sensim incrassato, tomentoso, umbrino, 2-5 cm. longo; pileo concolori pilis curtis velutino, infundibuliformi, margine leviter striato et undulato involuto, 3-5 cm. lato; lamellis umbrinis, strictis, inæqualibus, utrinque attenuatis, decurrentibus, acie integerrima.

Hab. ad ligna pr. Talagouga in regione Kongoana gallica.

11. **Lentinus anisatus** P. Henn. Verhandl. Bot. Ver. Prov. Brandbg. XXXIX, p. XCVI. — Pileo carnoso-lento, subflabelliformi v. oblique subinfundibuliformi, sublobato, 2-3 cm. diam., albido, levi glabro v. subvillosulo, margine tenui; stipite laterali v. excentrico brevi, solido, firmo, pallido, glabro, basi interdum rufobrunneo; lamellis decurrentibus, subventricosis, subconfertis flavidulis, acie integris; sporis oblongato-cylindraceis, obtusis, basi oblique apiculatis, 6-7 × 3½, hyalinis; odore anisato. 265

Hab. ad truncos Salicis cinereae pr. Rathenow Borussiæ.

12. **Lentinus cylindrosporus** P. Henn. Hedw. 1897, p. 205. — Pileo coriaceo, tenui, orbiculariter explanato, centro depresso subinfundibuliformi, cinnamomeo, squamis subimbricatis, membranaceo-floccosis adpressis concoloribus tecto, ca. 10 cm. diametro, obscuriore striato; stipite farcto, tereti ochraceo-squamosulo, 3½ cm. longo, 5 mm. crasso; lamellis decurrentibus, coriaceo-membranaceis, pallide cinnamomeis, subpruinosis, subdistantibus, ca. 2 mm. latis, acie integerrimis; sporis subcylindraceis, rectis vel subcurvatis, utrinque obtusis, hyalinis, 7-8 × 2-2½ μ. 266

Hab. ad lignum pr. Blumenau Brasiliæ (Möller). — Externo habitu *Lentino velutino* Fr. affinis, sed sporis subcylindraceis diversus.

13. **Lentinus frondosus** P. Henn. Hedw. 1897, p. 206. — Pileis coriaceo-sublignosis, confluentibus, plicato-costatis, rugosis, cinnamomeis, tomentosis, margine lobato-incisis, proliferantibus, 12-15 cm. diametro, contextu cinnamomeo-floccoso, tenui; stipitibus brevibus, sulcatis basi confluentibus, ca. 2 cm. longis, 1 cm. crassis farctis, sublignosis; lamellis decurrentibus latis denticulatis vel laceratis cinereo-pruinosis; sporis subglobosis vel ellipsoideis, brunneolis? 267

Hab. in Brasilia (Sello). — An ad *Glœosporum* ducendus?

14. **Lentinus marasmioides** P. Henn. Engl. Jahrb. XXIII, p. 547. — Pileo campanulato-explanato, coriaceo, rigido, centro umbilicato, gibboso v. umbonato, atro-badio, radiatim-striato, subtomentosulo, pallido, 5-10 mm. diam.; stipite tereti, farcto, brevi, curvulo, subtomentoso, basi strigoso, pallido, 3-5 mm. longo, 1 mm. crasso; lamellis adnatis, subdistantibus, subcoriaceis, angustis, crassis, pallide alutaceis. 268

Hab. in ramis putridis in Togo, Afr. occ. (Baumann).

15. **Lentinus Schomburgkianus** P. Henn. Hedw. 1897, p. 205. — Pileo coriaceo-lignoso, maximo, infundibuliformi, costato-sulcato concentrice zonato, cinnamomeo-rugoso subtomentoso, costis aculeis 269

fasciculatis cristatis vel subulatis tectis, tabacino, margine lobato-inciso, c. 15 cm. diametro; stipite 9 cm. longo, 1 cm. crasso, excentrico, lignoso firmo, farcto concolori apice striato, basi tuberculis subconicis vel subhemisphæricis tecto disciformi ca. 3 cm. incrassato; lamellis decurrentibus, coriaceis, sublignosis, pallide cinnamomeis, usque ad 1 cm. latis, acie integra, ca. 0,5 mm. crassis.

Hab. ad lignum in America australi.

16. **Lentinus sericeo-squamosus** P. Henn. Hedw. 1897, p. 206. — 270
Pileo coriaceo-membranaceo, minutulo, resupinato, vertice affixo, pallido, strigoso, squamis adpressis, albis, papyraceis, fimbriatis, sericeis tecto, 2-4 mm. diam., margine ciliato; lamellis distantibus, inæquilongis, latis, ventricosis, alutaceis, acie dentatis.

Hab. in petiolis Palmarum pr. St. Catharina Brasiliæ (Ule).

17. **Lentinus fissus** P. Henn. Engl. Jahrb. XXIII, p. 547. — Pileo 271
coriaceo, tubiformi v. infundibuliformi, palmatifido-laciniato, dense velutino-tomentoso, concolori, tereti, firmo, 3 cm. longo, 4 mm. crasso; lamellis decurrentibus, pallidis, confertis, angustis.

Hab. in ramis putridis in Togo Afr. occ. (G. Baumann).

18. **Lentinus minutulus** P. Henn. Engl. Jahrb. XXIII, p. 547. — 272
Pileo coriaceo, minuto, centro depresso, umbonato, obscuriore papillato, imbricato-squamoso, cinnamomeo, 2-5 mm. diam.; stipite centrali, subcurvato, strigoso, tomentoso, concolori, usque ad 5 mm. longo, vix 0,5 mm. crasso; lamellis postice subaffixis, distantibus, coriaceis, inæquilongis, angustis, ochraceis.

Hab. in ramulis emortuis in Togo Afr. occ. (G. Baumann).

19. **Lentinus brunneo-maculatus** Pat. Journ. de Bot. 1897, p. 337. 273
— Pileo orbiculari, convexo dein plano, tenui, 4-8 cm. lato, albo, squamis concentricis applicatis rubris v. brunneis confertissimis, centro subconfluentibus marginem versus distantibus tecto, margine albido striatoque; stipite tenaci, recto v. curvato, cylindrico 5-8 cm. longo, 4-6 mm. crasso, squamuloso; lamellis confertis integris, denticulo adnexis.

Hab. ad terram, verisimiliter fragmentis ligneis affixus, Tonkin.
— Ad *L. tigrinum* accedit.

LENTODIUM Morg. Journ. Cinc. Sc. Nat. Hist. XVIII, 1895, p. 36. (Etym. a *Lentino*, cui habitu accedit). — Pileus carnoso-coriaceus, tenax, siccus durus, persistens. Stipes plus minus elongatus, tenax, centralis v. excentricus. Hymenium poroso-cellulosum, velo tandem

radiatim dehiscente tectum. Sporæ ovoideæ, albæ. Habitus *Lentini tigrini*.

1. **Lentodium squamulosum** Morg. l. c. p. 37, tab. I, fig. 3. — Pileo 274
carnoso-coriaceo, orbiculari, plus minus irregulari, tenui, umbilicato, squamis minutis adpressis tecto, griseo v. rufo-nigrescente; stipite tenaci, solido, squamuloso, centrali v. excentrico, curto v. elongato, plus minus deformato; hymenio crasso, stipiti adnato, velo crasso albo floccoso tandem radiatim dehiscente tecto; poris irregularibus, ramosis, anastomosantibus, venosis, in cellulas divisis; sporis albis, elliptico-oblongis, 5-6 × $2^1/_2$-3.

Hab. ad truncos et ramos emortuos, Ohio Amer. bor. — Pileus 3-5 cm. diam., 1 cm. crassus; stipes variæ magnitudinis, interdum brevissimus. Ab auctore locatur prope *Lentinum*, sed ob hymenium potius ad *Polyporeas* spectat.

PANUS Fr. — Syll. V, p. 614, IX, p. 76, XI, p. 41.

1. **Panus betulinus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 413. 275
— Pileo tenui, suborbiculari v. dimidiato, subplano, glabro, postice in stipitem brevem elongato, griseo-brunneo, stipitem versus obscuriore v. nigrescente; lamellis angustis, densis, decurrentibus, albidis; stipite leviter luteo-brunneo-piloso; sporis minutis, 4-5 × 1,6-2,1.

Hab. ad lignum putridum Betulae, Newfoundland, Amer. bor. (Waghorne).

2. **Panus papillatus** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 276
1895, p. 95. — Pileo coriaceo-carnoso, tenaci, subsessili, resupinato-affixo, subexcentrico, rotundato-convexo, tabacino, tomentosulo, centro margineque pallidiore, 3-5 mm. diam.; lamellis radiatis, confertis, angustis, inæqualibus, acie integerrima, incrassata, flavo-ochraceis; stipite excentrico papilliformi verrucoso, albo-subtomentosulo; sporis non visis.

Hab. ad ramos putres Kamerun (Dusén).

3. **Panus angustatus** Berk. in Cooke, Handb. Austral. Fg. 1892, 277
p. 98. — Pileo spathulato, 1-2 cm. lato, 2-3 cm. longo, tenaci, subsessili, aurantiaceo, pilis paucis minutis sparsis vestito, in basim albidam angustato; lamellis inæqualibus, confertis, angustis, albis.

Hab. ad ramos putres, Queensland Australiæ.

4. **Panus paradoxus** P. Henn. Engl. Jahrb. XXIII, p. 547, tab. XIV, 278
fig. 8 *a, b*. — Pileo coriaceo-subcarnoso, vertice affixo, sessili, oblique subcyathiformi v. cupulato, dense squamoso-tomentoso, margine

substriato, leonino 3-5 mm. diam.; lamellis radiantibus, confertis, acie integris, crassiusculis, rufo-cinnamomeis, postice in pilos erectos fasciculatos transeuntibus; sporis haud conspicuis.

Hab. in ramis in Camerunia (ZENKER).

5. **Panus subflabellatus** P. Henn. Hedw. 1897, p. 206. — Pileo coriaceo, submembranaceo, apodo, flabellato, pallido, tomentoso-strigoso, 8-13 mm. longo, 5-8 mm. lato, margine inciso-lobato, basi albo-tomentoso radiante; lamellis subconfertis, alutaceis, inæquilongis; sporis subglobosis v. subovoideis, hyalinis, levibus, $3\,^1/_2$-4 μ. 279

Hab. in ligno vetusto pr. St. Catharina Brasiliæ (ULE).

XEROTUS Fr. — Syll. V, p. 630, IX, p. 78, XI, p. 42.

1. **Xerotus Drummondii** Berk. in Cooke, Handb. Austral. Fg. 1892, p. 100. — Gregarius; pileo reniformi, lobato v. crispato, ferrugineo, tenaci, glabro, 1 cm. lato, in stipitem brevem obconicum angustato; lamellis distantibus, adnatis, latis, demum subnigris. 280

Hab. ad ramos, Victoria Australiæ.

2. **Xerotus fulvus** Berk. et Br. in Cooke, Handb. Austral. Fg. 1892, p. 100. — Alutaceo-ochraceus; pileo reniformi, 1-2 cm. lato, membranaceo, tenaci, integro, obscure striato, velutino; stipite laterali, tenui, 1 cm. longo; lamellis paucis, angustis, tenuibus, stipitem attingentibus. 281

Hab. in ligno, Queensland Australiæ.

3. **Xerotus Mauryi** Pat. Bull. Soc. Mycol. 1898, p. 53, t. VII f. I. — Pileo ochroleuco, indurato, glabro, flabelliformi, plicato-rugoso, opaco, margine inflexo, levi v. sulcato, antice rotundato, integro v. lobato, postice in stipitem brevem, lignosum, lateralem, glabrum attenuato; lamellis distantibus, crassis, simplicibus v. furcatis, venoso-connexis, fuscescentibus, acie obtusis; cystidiis nullis; sporis hyalinis, levibus, ovoideis, 4-5 × 3. 282

Hab. ad ramos emortuos in Mexico (PAUL MAURY). — Pileus 2-5 cm. long., 2-3 cm., lat.; stipes 2-4 mm. long., 2 mm. cr. Habitus fere *Pani hygrophani* v. *P. arsenarii* sed multo rigidior.

SCHIZOPHYLLUM Fr. — Syll. V, p. 654, IX, p. 81, XI, p. 42.

1. **Schizophyllum lobatum** Went, Ber. Deutsch. Bot. Ges. 1896, p. 158. — Pileo ex albo rubro-griseo, piloso, margine crenato v. interdum lobato, 2-3 cm. diam.; sporis minutis, hyalinis. 283

Hab. in culmis Bambusae in Java.

2. **Schizophyllum multifidum** (Batsch) Fr.-Sacc. Syll. V, p. 655. — 284

Var. **digitatum** Ell. et Macbr. Bull. Lab. Nat. Hist. Jowa. III, n. 4, 1896, p. 194. — Gregarium, minutum, 3-6 mm. latum, digitato-multifidum, laciniis 3-4 linearil us.

Hab. ad ligna emortua in Nicaragua.

3. **Schizophyllum Egelingianum** Ell. et Ev. Bull. Torr. Bot. Club. 285
1895, p. 439. — Pileis imbricatis, reniformibus, margine integro v. lobato, 1 $^1/_2$ cm. longis, 2 cm. latis, albo-tomentosis, margine albo-pilosis, depressis, azonis; stipite laterali; carne circiter 1 mm. crassa, alba, carnoso-coriacea; lamellis pallide carneis, inæqualibus, angustis, circa stipitem brevissimis; sporis hyalinis, globoso-ellipticis, circiter 3 × 2 $^1/_2$; basidiis clavato-cylindraceis, 18-20 × 3 $^1/_2$.

Hab. ad truncum Magnoliae mexicanae, Mexico (Egeling).

Sect. 2. **Rhodosporæ.**

VOLVARIA Fr. — Syll. V, p. 656, IX, p. 82, XI, p. 43.

1. **Volvaria striatula** Peck, Bull. Torr. Bot. Club. 1895, p. 487. — 286
Pileo tenui, convexo v. subplano, minute sericeo, margine striato, sicco subreticulato, albo; lamellis angustis, liberis albis, dein carneis; stipite curto, glabro, albo, basi volvæ membranaceæ reliquiis ornato; sporis subglobosis, 1-nucleatis, 8 μ. longis.

Hab. ad terram uliginosam, Kansas Amer. bor. (Bartholomew).

2. **Volvaria Peckii** Atk. in Peck 48 Rep. 1896, p. 11. — Pileo 287
tenui, convexo, glabro, viscido, margine leviter striato, albido; lamellis subconfertis, tenuibus, dilute carneis; stipite sursum leviter tenuato, glabro, solido, albido, volva membranacea, optime evoluta, laxa; sporis levibus, ellipsoideis 7-10 × 5-6, typice crasse 1-nucleatis.

Hab. in ligno putri Ithaca Amer. bor. (Atkinson). — Pileus 7 cm. lat.; stipes 8-10 cm. long., 6-8 mm. cr. *V. speciosæ* subaffinis.

3. **Volvaria arenaria** Otth ap. Trog Mitheil. Nat. Gesell. Bern. 1857, 288
p. 31. — Pileo initio campanulato, 5-6 cm. lat., dein dilatato, umbonato, sericeo-fibrilloso, albo-brunneolo, medio obscuriore, sicco; carne alba fragili, ad marginem valde tenuata; stipite albido, 5-6 cm. longo, 3-4 mm. cr., nitidulo, deorsum incrassato, farcto, volva minuta, utplurimum adhærente, laciniata, brunneola; lamellis subventricosis, flavidulis, demum albo-roseis, confertis, liberis, sed a stipite non distantibus.

Hab. in arenosis pr. Heimbergbrücke in Helvetia.

4. **Volvaria emendatior** B. et Curt. Cert. of N. A. fungi, 1859, p. 6. 289
— Pileo plano, umbonato, glabro, albo; stipite sursum deorsumque incrassato; volva marginata; lamellis remotis; sporis cymbiformibus, 12-13 μ. longis.

Hab. in Carolina inf. et New England Americæ borealis ad terram humosam. — Pileus 7-8 cm. lat.; stipes 7 cm. long., 8 mm. cr.

ANNULARIA Schulz. — Syll. V, p. 668, IX, p. 82, XI, p. 43.

1. **Annularia Teisserei** De Seyn. Rech. Champ. Congo fr. 1897, I, 290
p. 3, tab. I, fig. 21-26. — Stipite levi, vix fibrilloso, stricto, cavo, argillaceo, sursum pallescente, bulbilloso, 3 cm. alto, deorsum 7 mm., sursum 3 mm. lato, annulo horizontali, persistente, mobili, tertia parte superiori stipitis inserto; pileo globuloso, carnosulo, argillaceo, apice umbrino et rimis paucis, minutis, quasi tuberculis minimis ornato, 1 cm. lato, 8 mm. alto; lamellis liberis, remotis, pallescentibus; hymenio basidiis, parabasidiis, cystidiis paucis, mammiformibus, regulariter instructo; sporis ovoideis, roseis, apice globulo cellulosico interiori adfixo, 10-12 × 6-7 μ.

Hab. ad truncos pr. Talagouga in regione Kongoana gallica.

PLUTEUS Fr. — Syll. V, p. 665, IX, p. 83, XI, p. 44.

1. **Pluteus giganteus** Massee, Journ. of Bot. 1896, p. 153. — Solitarius 291
v. gregarius; pileo late ovato, dein expanso, umbonato, levi glabroque, sicco contracto, margine plus minus incurvo, luteo-aurantiaco, disco obscuriore, 18-24 cm. diam.; carne firma, disco 2 cm. crassa; lamellis liberis, distantibus, confertis, tenuibus, subundulatis margine integris, pallide salmonicoloribus, usque ad 2 cm. latis; sporis ellipticis, levibus, 1-guttulatis, pallide salmonicoloribus, 7 × 5; stipite 12-14 cm. longo, apice 3-4 cm. crasso, basi incrassato, incurvo, solido, glabro, pallido.

Hab. ad lignum putridum, British Guiana (Jenman).

2. **Pluteus phlebophoroides** P. Henn. Hedw. 1896, p. 304. — Pileo 292
carnosulo convexo-explanato, cinnamomeo, vertice obscuriore venosulo, margine levi subglabroque, 2-3 cm. diametro; stipite subfistuloso, striato, tenui, pallido, basi albo-villoso 4 cm. longo, 2 mm. crasso; lamellis liberis, confertis, latis, flavo-carnescentibus; sporis ovoideis vel subellipsoideis $5\,^1/_3$-$7\,^1/_2$ × $4\,^1/_2$-6, episporio levi, pallide incarnato.

Hab. in truncis in Nova Zelandia (Harusler).

3. **Pluteus stercorarius** Peck, Bull. Torr. Bot. Club. 1895, p. 488. 293
— Pileo tenuissimo, subplano, glabro, candido; lamellis latiusculis, densis, liberis, carneis; stipite æquali, solido, glabro, albo; sporis magnis, plerumque 1-nucleatis, 13–16 × 8.

Hab. in fimetis, Kansas Amer. bor. (Bartholomew). — Pileus fere 7 cm. latus; stipes 4 cm. longus, $^2/_3$ cm. crassus.

4. **Pluteus aurantio-rugosus** Trog, Mittheil. Nat. Gesell. Bern. 1857, 294
p. 32. — Pileo initio campanulato, dein expanso-conico, tenui, areolato-rugoso flavo-rubente centro fere cinnabarino; stipite 4-6 cm. long., 4-8 mm. cr., flavido deorsum leviter incrassato et rubescente, brunneo-fibrilloso; lamellis crebris, altis, dein carneis, serrulatis, 4 mm. latis, liberis; sporis rubellis, globosis.

Hab. ad truncum Populi pr. Zulg Helvetiæ. — Inodorus.

5. **Pluteus nitens** Pat. Bull. Soc. Myc. 1898, p. 53, t. VII, f. II. 295
— Pileo convexo, tenui, fusco-brunneo, olivascenti, floccis paucis brunneis, radiantibus, prostratis subtiliter virgato, minute radiatim striatulo, striis concentricis nonnullis notato; stipite farcto, glabro, gracili, albido, nitenti, deorsum sensim incrassato; lamellis remotis carneo-flavidis, confertis, ventricosis, antice attenuatis, postice rotundatis; cystidiis fusoideis, apice obtusis, 45 × 20; sporis subglobosis, roseis, levibus, 6-8 μ. diam.

Hab. ad truncos in Mexico (Maury). — Totus 2-3 cm. lat.; stipes 1-3 cm. long. Affinis *P. nano* Fr.

6. **Pluteus curtus** Karst. Hedw. 1895, p. 7. — Pileo carnosulo, 296
tenui, convexo-expanso, obtuso, longitudinaliter (subinde rimose) fibrilloso, squamis disci erectis, crassiusculis, brevibus, muricatis squarroso, e pallido fuscescente, 2–3 cm. lato; stipite farcto, rigido, brevi (vulgo pileo breviori), æquali, flexuoso v. curvato, raro recto, flocculoso-squamuloso, fuscescente, apice nudo, intus albido; lamellis adnexis, latis, ventricosis, subconfertis, e pallido fuscescentibus; sporis angulatis v. tuberculatis, flavescentibus, 5 × 3–4; cystidis fusoideis.

Hab. in humo uda subturfosa, musco brevi obducta pr. Mustiala Fenniæ. — *Inocybæ laceræ* similis, sed minor, curtus. Inodorus.

ENTOLOMA F. — Syll. V, p. 679, IX, p. 83, XI, p. 44.

1. **Entoloma grande** Peck, 50 Rep. p. 101 (1897). — Pileo carnoso, 297
ad marginem tenuato, glabro, subplano, typice late umbonato rugoso, udo flavido-albo ad cinereo-brunneum vergente; carne alba, odore et sapore farinaceis; lamellis latis, distantibus, leviter adnexis,

demum subliberis; stipite subæquali, solido, extus subfibroso apice farinoso, albo; sporis angulosis, 7-10 μ. diam.

Hab. in silvis mixtis, Menands Amer. bor. — Pileus 10-15 cm. lat.; stipes 10-15 cm. long., 16-24 mm. cr.

2. **Entoloma griseo-olivascens** Britz. Hymen. Kunde I, p. 5, fig. 179. 298 — Pileo luteo-brunneo vel griseo-olivaceo, subtiliter fibroso; lamellis confertis, albicantibus v. albo-brunneis v. roseis; stipite albido v. brunneo-albo; sporis oblongo-rotundatis, angulosis, 8-10 × 6-7; odore nullo.

Hab. in paludosis in Bavaria.

3. **Entoloma ferruginans** Peck, Bull. Torr. Bot. Club. 1895, p. 200. 299 — Pileo carnoso, convexo, obtuso v. umbonato, sæpe irregulari, hygrophano, glabro, nitido, obscure fuligineo; carne albida, superficie fibrosa, tincta; lamellis 9-16 mm. latis, adnexis facile transverse sinuatis, griseo-salmonicoloribus, demum sordide luteis; stipite solido, glabro, luteolo-cremeo, basi interdum attenuato; sporis subglobosis, irregularibus v. angulosis, $7^3/_4$-$10^1/_2$ μ. longis.

Hab. sub Quercubus, California (Mc. Clatchie). — Pileus 5-16 cm. latus; stipes 8-$10^1/_2$ cm. longus, 9-18 mm. crassus. — *E. rhodopolio* affine.

4. **Entoloma Murrayi** B. et C. Cent of N. A. fungi 1859, p. 6. — 300 Stramineum; pileo tenui, striato, glabro; stipite gracili; lamellis latis, distantibus, adnexis, interstitiis venosis; sporis irregularibus, 9-10 μ. diam.

Hab. ad terram humosam, New England Amer. bor. (Murray). — Pileus 2,5 cm. lat., siccus rufo-brunneus, margine crenulato; stipes 7 cm. long., 2-3 mm. cr.

5. **Entoloma pachypus** (Holmsk.) Cke. in litt. *Agar.* Holm. tab. 39. 301 — Solitarium, stipitatum, volvatum; pileo convexo obscure testaceo, centro squamoso; lamellis quadriserialibus, carneis; stipite solido, basi crasso, flavescente.

Hab. in silvis in Dania. — Cl. Fries ducit ad *Cortinarium carium.*

6. **Entoloma spilotum** (Holmsk.) Cke. in litt. *Agar.* Holms. tab. 42. 302 — Subsolitarium, stipitatum, volvatum; pileo convexo, glabro, cœruleo-variegato; lamellis quadriserialibus, dilute lilacinis; stipite strigoso, cœrulescente, volva evanida.

Hab. in campis in Dania. — Cl. Fries ducit ad *Strophariam æruginosam.*

CLITOPILUS Fr. — Syll. V, p. 698, IX, p. 85, XI, p. 45.

1. **Clitopilus Underwoodii** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 18. — Pileo tenui, sed carnoso, subplano v. centro leviter depresso, levi, albido; sporis subglobosis, 4-5 μ. longis. 303

   Hab. ad terram, New York Amer. bor. — Pileus 3 ½-4 cm. latus; stipes circiter 2 ½ cm. longus, ½ cm. crassus. *C. stilbocephalo* affinis.

2. **Clitopilus depressus** Clem. Bot. Survey of Nebraska, IV, Lincoln. 1896, p. 21. — Pileo plano convexo v. centro depresso, submembranaceo, glabro ochraceo, centro pallidiore; stipite brevi, solido, glabro, albo, utrinque incrassato; lamellis decurrentibus, subdistantibus, dilute cinnamomeis; sporis irregulariter ellipsoideis, pallide roseis, 8-10 × 4-5. 304

   Hab. in foliis dejectis, Nebraska Amer. bor. — Pileus ¾-1 ½ cm. latus; stipes 1 ½-2 ½ cm. longus, 2 mm. crassus.

3. **Clitopilus togoënsis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 103. — Pileo carnosulo, applanato, centro depresso, pallido, farinaceo-granuloso, margine tenui, subrepando, involuto, circiter 1 cm. diam.; stipite carnoso, farcto, dein cavo, glabro et levi, albido, circiter 2 cm. longo, 1 ½ mm. crasso; lamellis cuneato-affixis, distantibus, latis, crassis, inæquilongis, subcarneis; sporis ellipsoideis, levibus, uniguttulatis, carneis, 7 8 × 5-6. 305

   Hab. ad terram, Togo (Buettner). — *Cl. carneo-albo* With. affinis.

LEPTONIA Fr. — Syll. V, p. 706, IX, p. 87, XI. p. 46.

1. **Leptonia Staudtii** P. Henn. Engl. Jahrb. XXIII, p. 554. — Pileo membranaceo, tenui, convexo-plano, radiatim striato-sulcato, fibroso, cœruleo, cinerescente; stipite cartilagineo, subcavo, cœrulescente, levi glabroque, 1 ½-2 cm. longo; lamellis adnatis, ventricosis, confertis, carneis; sporis irregulariter ellipsoideis, 5-6-angulatis, 1 grosse guttulatis, carneis, 6-8-10 × 5-7. 306

   Hab. ad terram in lapidibus in Camerunia (Staudt).

2. **Leptonia viridula** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 104. — Pileo membranaceo, e campanulato explanato, centro subumbilicato v. depresso, margine substriato, viridi, 10-15 mm. diam.; stipite fistuloso, levi glabroque, flavo-viridulo, usque ad 4 cm. longo, 3 mm. crasso; lamellis adnexis, inæqualibus, lanceolatis, postice latioribus, margine angustis, flavo-viridulis; sporis ovoideis v. ellipsoideis, 1-guttulatis, levibus, subcarneis, 5-6 × 4-5; basidiis clavatis. 307

Hab. ad ligna putrida, Kamerun (ZENKER et STAUDT).

3. **Leptonia edulis** Peck, Bull. Torr. Bot. Club. 1895, p. 201. — Pileo 308
tenui, convexo v. in centro depresso, partim umbonato, partim non umbonato, velutino, obscure griseo; lamellis sublatis, subventricosis, adnexis, modice confertis, ex albido v. luteo-griseo carneis; stipite gracili, fistuloso, colore pilei, basi sæpe tomento albo mycelioideo dense vestito; sporis subglobosis, angulosis, apiculatis, $7^3/_4$-$10^1/_2$ μ. longis, nucleo magno præditis.

Hab. in graminosis, California (Mc. CLATCHIE). — Pileus $1^1/_3$-4 cm. latus; stipes $2^3/_4$-4 cm. longus, 1-$2^1/_4$ mm. crassus.

NOLANEA Fr. — Syll. V, p. 716. IX, p. 88, XI, p. 47.

1. **Nolanea atro-cyanea** Clem. Bot. Survey of Nebraska, IV, Lincoln 309
1896, p. 21. — Pileo membranaceo, campanulato, glabro v. minute verrucoso, papillato-umbonato, margine striato-lacerato, atro-cyaneo; stipite æquali, cartilagineo, glabro, dilute cœruleo v. glauco; lamellis angustis, subdistantibus, ochroleucis; sporis globosis v. ellipsoideis, 3-7-angularibus v. apiculatis, uniguttulatis, roseis, 5-7 × 7-9.

Hab. in silvis, Nebraska Amer. bor. — Pileus 1-3 mm. latus; stipes 1 cm. longus, $^1/_2$-1 mm. crassus.

ECCILIA Fr. - Syll. V, p. 729, IX, p. 88.

1. **Eccilia nivea** Peck, 49 Rep. Stat. Bot. N. York 1896, p. 18. — 310
Pileo submembranaceo, hemisphærico v. convexo, glabro, leviter umbilicato, albo; lamellis tenuibus, distantibus, arcuatis, decurrentibus, albis, dein carneis; sporis angulosis v. irregularibus, uninucleatis, 8 × 7.

Hab. ad terram in silvis, New York Amer. bor. — Pileus 1-$1^1/_3$ cm. latus; stipes $2^1/_2$-4 cm. longus, 1 mm. crassus.

2. **Eccilia Häusleriana** P. Henn. Hedw. 1896, p. 304. — Pileo sub- 311
carnoso subconvexo, depresso vel subinfundibuliformi atrocastaneo, levi glabroque margine substriato, $^1/_2$-2 cm. diametro; stipite cavo, striato tortoque, cinereo, basi subincrassato, 15-20 cm. longo, $1^1/_2$-2 mm. crasso; lamellis decurrentibus, subdistantibus, inæquilongis basi venoso-connexis, flavo-brunnescentibus; sporis subglobosis subacutangulis $3^1/_2$-$4^1/_2$ μ., episporio pallide incarnatis basidiis clavatis.

Hab. ad truncos? Ohampo Novæ Zelandiæ (HAEUSLER). — *Eccilicæ griseo-rubellæ* Lasch videtur affinis.

3. **Eccilia Zenkeri** P. Henn. Fungi camerun. I, in Engl. Jahrb. 312

XXII, 1895, p. 104. — Pileo membranaceo, e convexo infundibuliformi v. depresso, subsulcato, margine inciso v. subcrenulato, tenui, interdum crispo-involuto, lilacino-brunneolo, 8-15 mm. diam.; stipite subcavo, tenaci, curvato, interdum contorto, subpruinoso, concolori, basi subdisciformi affixo, subtomentosulo, 8-10 mm. longo, circ. 1 mm. crasso; lamellis triquetro-decurrentibus, distantibus, inæqualibus, latis, interdum undulatis, lilacino-flavescentibus; sporis late ellipsoideis, basi oblique apiculatis, levibus, 1-guttulatis, carneis, $4^1/_2$-$5^1/_2$ × 4-5.

Hab. ad ramos putres dejectos, Kamerun (Zenker et Staudt). — *E. carneo-griseæ* Berk. affinis.

4. **Eccilia camerunensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. 313
XXII, 1895, p. 104. — Pileo membranaceo-carnosulo, convexo-applanato, umbilicato, subinfundibuliformi, radiato-striato, tomentosulo, griseo-brunneo, margine tenui, interdum subrepando, 0,7-2 cm. lato; stipite gracili, firmo, curvato, glabro levique, griseo, basi subincrassato, pallidiore, 1-2 cm. longo, 1-$1^1/_2$ mm. crasso; lamellis cuneato-decurrentibus, inæquilongis, distantibus, latis, acie integris, griseo-flavescentibus; sporis subglobosis, vix acutangulis, uniguttulatis, carnescentibus, 7-8 μ.; cystidiis clavatis.

Hab. ad truncos et ramos putridos, Kamerun (Dusén).

5. **Eccilia nigricans** Peck, Bull. Torr. Bot. Club. 1895, p. 201. — 314
Pileo tenui, convexo, umbilicato v. centro depresso, subzonato, griseo-nigro; lamellis latis, distantibus, decurrentibus, luteo-griseis v. brunneolis, demum subcarneis; stipite brevi, fistuloso, griseo-nigro, plerumque mycelio albo munito; sporis angulosis, circiter 13 μ. diam., nucleo magno præditis.

Hab. in graminosis, California (Mc Clatchie). — Pileus $1^1/_3$-4 cm. latus; stipes circiter $2^1/_2$ cm. longus, 1-$2^1/_4$ mm. crassus.

CLAUDOPUS W. Sm. — Syll. V, p. 733, IX, p. 89, XI, p. 48.

1. **Claudopus camerunensis** P. Henn. Fungi camerun. I, in Engl. 315
Jahrb. XXII, 1895, p. 103. — Pileo membranaceo, oblique campanulato, subreniformi, plicato, ruguloso, crispo, albido, nudo, usque 1 cm. diam.; stipite brevissimo, laterali, brunneo, levi, circiter 1 mm. longo, vix 1 mm. lato; lamellis sinuoso-adnatis, distantibus, latis, undulatis, basi anastomosantibus, pallidis; sporis subglobosis, 7-8 μ., levibus, carnescentibus.

Hab. ad ramos siccos, Kamerun (Dusén).

2. **Claudopus truncorum** Britz. Hymen. Kunde III, 1897, p. 4, fig. 188. 316

— Pileo albo vel albido, subnitido, molli, submembranaceo, margine sæpe undulato; lamellis subdistantibus, albidis v. rubicundis; sporis subglobosis luteolis, 8-10 × 6-8, in cumulo sordide carneis v. sordide rubicundis.

Hab. ad ramos Quercus, Salicis etc. in Bavaria.

3. **Claudopus terricola** Britz. Hymen. Kunde III, 1897, p. 4, fig. 186. 317 — Pileo albido, griseo v. brunneolo-albido; lamellis subconfertis, rubicundis v. brunneolis; sporis luteolis, 10-11 × 6, in cumulo rubicundo-carneis.

Hab. ad terram in Bavaria.

4. **Claudopus Krugianus** P. Henn. Hedw. 1897, p. 208. — Pileo sub- 318 sessili, membranaceo, semiorbiculari, convexo, squamuloso, dein subnudo, pallido, squamis luteis tecto, 5-10 mm. lato, 3-6 cm. longo; lamellis ventricosis, latis, inæqualibus, distantibus, e pallido subcarnescentibus; sporis ellipsoideis, uniguttulatis, flavo-carnescentibus, 6-7 × 4-5.

Hab. ad ramos pr. Balão Æquatoriæ (v. Eggers).

Sect. 3 Ochrosporæ.

PHOLIOTA Fr. — Syll. V, p. 736, IX, p. 90, XI, p. 48.

1. **Pholiota violacea** Vogl. Bull. Soc. bot. Ital. 1896, p. 42. — Pileo 319 carnoso, molli, convexo v. expanso, obtuso, viscido, violaceo, disco obscuriore, 4-5 cm. lato; lamellis confertis, arcuato-decurrentibus, acie minute erosis, fuscescentibus; sporis ochraceo-fuscis, ellipsoideis, 8-12 × 6; basidiis clavato-oblongis, 28-30 × 6-8; stipite cylindrico, fistuloso, tenui, sericeo, atro-violaceo, 5-7 cm. longo, 4-6 mm. crasso; annulo integro, membranaceo, distante, violaceo.

Hab. ad terram in locis graminosis in silvis montis Generosi in Helvetia italica.

2. **Pholiota radicellata** Gill. Champ. Franc. (fasc. ult.) c. ic. — 320 — Pileo carnoso, ovoideo, dein convexulo, radiatim striato, saturate flavo-ochraceo, 3-4 cm. lat.; lamellis copiosis, leviter adnexis, pileo concoloribus; stipite albo, cavo deorsum longe radicato-acutato; annulo fugaci; carne alba; odore et sapore obsoletis.

Hab. cæspitosa in silvis Galliæ sept.

3. **Pholiota rugosa** Peck, 50 Rep. p. 102 (1897). — Pileo tenui late 321 conico v. campanulato, dein expanso, sæpe umbonato, hygrophano humiditate flavido-rubro v. ferrugineo, margineque striatulo, in sicco pallide flavo v. fulvo et rugosulo; lamellis confertis, adnexis,

flavido-albis, dein ferrugineis vel brunneolis, acie albis minuteque denticulatis; stipite flexuoso æquali v. deorsum leviter incrassato, cavo, fibrilloso-squamuloso supra annulum membranaceum albidum radiatimque striatum; sporis ellipsoideis 8-13 × 6-7.

Hab. ad v. prope caudices putres, Adirondack Mount. Amer. bor. — Pileus 12-24 mm. lat.; stipes 2,5-3 cm. long., 2-4 mm. cr. *Ph. blattariæ* e *togulari* subaffinis.

4. **Pholiota sabulosa** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 414. 322 — Pileo convexo v. subplano, glabro, pallide luteo-brunneo; lamellis adnatis, subdistantibus, luteo-brunneis; stipite brevi, æquali v. deorsum leviter attenuato, cavo, colore pilei v. pallidiore; annulo minuto, subevanido; sporis subellipticis, brunneo-ferrugineis, 8-10 1/2 × 5-6 1/2.

Hab. ad terram sabulosam, Alabama Amer. bor. (Underwood). — Pileus 2-2 3/4 cm. latus; stipes fere 2 1/2 cm. longus, 2-5 mm. crassus.

5. **Pholiota aurantio-ferruginea** Britz. Hymen. Kunde I, 1895, p. 5, 323 fig. 422. — Pileo glutinoso, aurantiaco, squamis ferrugineis adpressis; lamellis confertis, carneo-isabellinis vel carneo-fulvis; stipite aurantiaco, squamis fibrosis ferrugineis; sporis luteolis, 6-7 × 3, in cumulo luteo-brunneis.

Hab. ad truncorum basin in Bavaria.

6. **Pholiota anomala** Peck, Bull. Torr. Bot. Club. 1895, p. 202. — 324 Pileo primitus hemisphærico v. subconico, dein convexo, glabro, hygrophano, sicco, pallide luteo v. cremeo; lamellis adnatis v. subdecurrentibus, subarcuatis, pallidis, dein brunneolo-ferrugineis, acie sæpe alba; stipite cavo v. fistuloso, interdum gossypino-tomentoso, albido; annulo parvo, evanescente; sporis ellipticis, 8-10 1/2 × 4-5 1/4.

Hab. in lignis et foliis dejectis, California (Mac Clatchie). — Pileus 1 3/4-4 cm. latus; stipes 4-6 1/2 cm. latus, 2 1/2-6 3/4 mm. crassus.

INOCYBE Fr. — Syll. V, p. 762, IX, p. 95, XI, p. 50.

1. **Inocybe cucullata** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894, 325 p. 179. — Pileo vario, campanulato v. campanulato-convexo, interdum subirregulari, squamoso, fulvo, disco squamis obscurioribus tecto, 1 1/2-3 cm. lato; stipite æquali v. sæpius basim versus attenuato, cavo, glabro, vulgo curvato v. flexuoso, 2-4 cm. longo, pileo pallidiore; lamellis latis, adnexis, dein liberis, ochraceis, demum pallide brunneo-ferrugineis, acie albis serrulatisque, subconfertis,

interdum plicatis; sporis ovoideis v. pruniformibus, levibus; sapore nullo, odore camphorato.

Hab. in graminosis Helvetiæ.

2. **Inocybe oblongispora** Britz. Hymen. Kunde I, 1895, p. 5, fig. 424. 326
— Pileo luteo-brunneo, squamis squarroso-fibrosis; carne rubicunda; lamellis isabellinis v. rubescenti-albicantibus v. luteo-brunneis, subconfertis; stipite sericeo-fibrilloso, fulvo-brunneo; sporis brunneolo-luteis, 14-16 × 4-6, in cumulo brunneis.

Hab. in silvis in Bavaria.

3. **Inocybe fibroso-lacerata** Britz. Hymen. Kunde II, 1896, p. 4, 327
fig. 440. — Pileo adpresse brunneo-fibroso, margine lacerato-fibroso, centro brunneo; carne alba; lamellis confertis, griseo-brunneolis; stipite albido, brunneolo-fibroso; sporis luteis, 8-10 × 4-5; odore pirino.

Hab. in silvaticis in Bavaria.

4. **Inocybe sanguinolenta** Britz. Hymen. Kunde II, 1896, p. 4, fig. 441. 328
— Pileo albido, dense sanguineo-fibroso, centro sanguineo, margine dein lacerato; stipite pileo concolori; carne fibrosa, albido-subsanguinea; lamellis primo albido-carneis, dein griseo-roseolis vel griseo-brunneis; sporis luteis, 10 × 6, in cumulo sordide griseo-luteis.

Hab. ad truncos putridos in Bavaria.

5. **Inocybe radiata** Peck, Bull. Torr. Bot. Club. 1895, p. 488. — 329
Pileo tenui, convexo v. subcampanulato, distincte umbonato, sericeo-fibroso, vix rimuloso, sicco distanter radiato-rugoso, luteolo brunneo, umbone nigro-brunneo; lamellis latiusculis, confertis, emarginatis, brunneolis, ætate luteolo-cinnamomeis, acie albida; stipite æquali, solido, subglabro, pileo subconcolori, sed pallidiore; sporis subovatis, nodosis v. angulosis, 10-13 × 5-6 $^1/_2$.

Hab. ad terram graminosam, Massachusetts Amer. bor. — Pileus fere 2 $^1/_2$ cm. latus; stipes 2 $^1/_2$-5 cm. longus, 2-4 $^1/_2$ mm. crassus. E vicinia *Inocybæ fuscodiscæ, I. infidæ, I. agglutinatæ* etc., sed cum nulla harum apte conjungenda.

6. **Inocybe erythroxa** De Seyn. Rech. Champ. Congo fr. 1897, I, 330
p. 2, tab. I, fig. 1-5. — Stipite levi, demum cavo, flavescente, deorsum pallescente, 1 $^1/_2$ cm. alto; pileo carnosulo, plano, subdepresso, centro leviter prominente, margine tandem reflexo irregulari, ferrugineo, aculeis pyramidatis, rubris ornato, 1 $^1/_2$-2 cm. lato; carne flavescenti-lutea, tenaci; lamellis ventricosis, inæqualibus, remotis, liberis aut vix adnatis, fuligineo-flavis, saturatis, acie decolorantibus; basidiis exsertis, clavatis, 25 μ. latis, 4 sterigmatibus

elongatis, raro 2-sterigmaticis; parabasidiis strictis; cystidiis non visis; sporis ovoideis, levibus, ferrugineis, copiosis, 7 × 3-4 μ.

Hab. ad terram pr. Talagouga in regione Kongoana gallica.

7. **Inocybe ochraceo-violascens** Britz. Hymen. Kunde III, 1897, p. 4, fig. 452. — Pileo ochraceo, squarroso-squamoso-fibroso; carne rubicundo-alba; lamellis confertis, pallide griseo-luteis; stipite lilacino vel lilacino-violaceo, sursum albido, sericeo, non cavo; sporis ovoideis, non granulosis irregularibusve, luteis, 10-11 × 5-6, in cumulo sordide luteo-brunneis. 331

Hab. in silvis in Alpibus.

8. **Inocybe unicolor** Peck, 50 Rep. p. 104 (1897). — Pileo initio conico v. convexo, dein expanso, firmo tomentoso-squamuloso, pallide ochraceo v. griseo-ochraceo; carne alba; lamellis latis, subdistantibus leviter ventricosis, pallide ochraceis, demum rufo-brunneis; stipite tenui, æquali, firmulo, flexuoso, squamuloso, pileo concolore; sporis rufo-brunneis, ellipsoideis, levibus, 10-13 × 5-6. 332

Hab. in calcareis, Menands Amer. bor. — Pileus 2-3 cm.; lat., stipes 2,5-4 cm. long., 2-4 mm. cr. Habitus *Inoc. ochraceæ.*

9. **Inocybe subtomentosa** Peck, 48 Rep. 1896, p. 11. — Gregaria v. subcæspitosa; pileo tenui, sicco, convexo v. plano, minute tomentoso, brunneo-fulvo; lamellis tenuibus, confertis, adnatis, leviter emarginatis, albidis, dein flavido-viridulis, demum brunneo-fulvis; stipite brevi solido, sericeo-fibrilloso, fere colore pilei, sæpius mycelio copioso albo basi prædito; sporis ellipsoideis 7-10 × 5-6. 333

Hab. ad terram inter folia dejecta, Rouses Point Amer. bor. — Pileus 12-24 mm. diam.; stipes 2-3 cm. long., 2 mm. cr. — Affinis *I. tomentosæ* et *I. fibrillosæ.*

HEBELOMA Fr. — Syll. V, p. 791, IX, p. 102, XI, p. 54.

1. **Hebeloma gregarium** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 18. — Pileo tenui, sed carnoso, hemisphærico v. convexo, obtuso vel rarius umbone minuto inconspicuo coronato, udo subviscido, glabro vel margine veli reliquiis subsericeo, pallide ochraceo, centro interdum rubescenti-tincto; carne albida; lamellis tenuibus, confertis, adnatis, ex albido subcinnamomeis; stipite gracili, fistuloso v. cavo, albido, fibrilloso, apice subfarinaceo v. pruinoso; sporis ellipticis, 10-13 × 6 1/3. 334

Hab. ad terram arenosam, New York Amer. bor. — Pileus 2-3 1/2 cm. latus; stipes 4-5 cm. longus, 2-5 mm. crassus.

2. **Hebeloma flavum** Clem. Bot. Survey of Nebraska IV, Lincoln. 335

1896, p. 22. — Pileo campanulato, carnoso, viscido, margine incurvato, appendiculato, dilute luteo; squamis subconcentricis, fulvis, 2 mm. latis; stipite crasso, solido, brevi, curvato, squamis concentricis floccosis fulvis dense vestito, basi excepto, luteo; lamellis subsinuatis, modice confertis, sordidis; sporis ovoideis, ochroleucis, 7-8 × 4.

Hab. ad terram, Nebraska Amer. bor. — Pileus 5-6 cm. latus; stipes 3-5 cm. longus, $^2/_3$-2 cm. crassus.

3. **Hebeloma fœdatum** Peck, Bull. Torr. Bot. Club. 1895, p. 202. — 336
Pileo carnoso, convexo, demum plano v. centro depresso, glabro valde viscido v. glutinoso, rubro-cinnamomeo; carne luteolo-alba; lamellis subventricosis, emarginatis, decurrentibus, cinnamomeis, dein fuscis; stipite solido, æquali v. apice leviter incrassato, fibrilloso, pallidiore; sporis late ellipsoideis, $6\,^1/_4$-$7\,^3/_4$ × 4-$5\,^1/_4$.

Hab. ad terram, California (Mc Clatchie). — Pileus 4-8 cm. latus; stipes 4-$6\,^1/_2$ cm. longus, $^1/_2$-1 cm. crassus.

4. **Hebeloma fusiformi-radicatum** Britz. Hymen. Kunde I, 1895, p. 6, 337
fig. 429. — Pileo glutinoso, pallide ochraceo vel albo, centro luteolo; carne pileo concolori; lamellis confertis, albido-ochraceis vel carneo-brunneo-ochraceis; stipite albido, inferne luteo-rubro-brunneo; sporis luteis, 10-12 × 6, in cumulo rubro-brunneis; odore nullo.

Hab. in silvaticis in Bavaria.

5. **Hebeloma albido-cortinatum** Britz. Hymen. Kunde I, 1895, p. 6, 338
fig. 428. — Pileo glabro, substriato, opaco, albido-luteo-rubro; carne in stipite superne albida vel sordide ochroleuca, inferne albido-rubiginosa; lamellis subconfertis, albicantibus; stipite superne albo, inferne brunneo, fibrillis vel floccis albis prædito; sporis luteis, 6-7 × 3-4, in cumulo luteo-brunneis.

Hab. in silvaticis in Bavaria.

6. **Hebeloma violascens** Otth apud Trog Mittheil. Natur. Ges. Bern. 339
1857, p. 33. — Pileo carnoso-tenui, $2\,^1/_2$ cm. lat., convexo, umbonato, sicco, sericeo-nitidulo, læte violaceo, disco brunneolo adpresse squamuloso; stipite 3-4 cm. long., 4 mm. cr., pallide violaceo, demum rufo-fibrilloso, basi bulbilloso albo-flavido; lamellis adnexis, ventricosis, remotiusculis, integris, acie minutissime crenulata, e violaceo-carneo brunneolis.

Hab. ad terram pr. Bernam Helvetiæ.

7. **Hebeloma rubrum** Otth ap. Trog Mittheil. Nat. Gesell. Bern. 1857, 340
p. 33. — Pileo initio campanulato demum e conico expanso, inque plures lacinias scisso, laete rubro 4-cm. lato, exsiccando flavello;

carne tenui rubescente; stipite æquali 4 cm. long., 4-5 mm. cr., fibroso, levi v. striatulo, recto v. curvulo, sæpe basi bulbilloso, pileo concolore, pruinosulo; lamellis liberis, ventricosis, pileo pallidioribus, demum brunneo-flavicantibus.

Hab. in graminosis pr. Bernam Helvetiæ.

8. **Hebeloma crustuliniforme** Bull. - Sacc. Syll. V, p. 799. — Var. **tunetanum** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 36. — Pileo carnoso, convexo-plano, orbiculari, glabro, subviscoso, albido-ochraceo, centro subfusco; lamellis adnexis, rufo-argillaceis, angustis, confertis, immaculatis; basidiis clavatis, 4-sterigmaticis, 20-23 × 8-10 μ.; cystidiis nullis; sporis ovoideis, utrinque apiculatis, argillaceis, levibus, 1-2-guttulatis, 14-15 × 6-8 μ.; stipite cylindraceo, æquali, curvato, fibrilloso, apice farinoso, albido, gracili, farcto; carne pilei albida, molliuscula, immutabili. 341

Hab. ad terram in Tunisia.

9. **Hebeloma Kirtoni** Kalchbr. in Mc Alp. Arrang. Austral. Fungi, 1893, p. 32. — Compacto-carnosum, convexo-planum, glabrum; stipite solido, carnoso, fibrilloso, albo-sericeo. 342

Hab. ad terram, prope caudices, N. S. Wales Australiæ.

FLAMMULA Fr. — Syll. V, p. 809, IX, p. 104, XI, p. 56.

1. **Flammula edulis** Peck, Bull. Torr. Bot. Cl. 1897, p. 142. — Pileo carnoso, convexo, obtuso glabro, udo, brunneo, griseolo-brunneo v. alutaceo-brunneo, interdum rimoso; carne albida; lamellis latis, confertis decurrentibusque, luteo-brunneis, demum brunneolo-ferrugineis; stipitibus cæspitosis, æqualibus, farctis v. cavis, brunneis; sporis subellipticis, 13 × 5-6 $^1/_2$. 343

Hab. ad terram, in pratis, ad margines viarum etc. New Jersey Amer. bor. — Pileus 5-8 cm. latus; stipes 5-8 cm. longus, $^3/_4$-1 $^1/_4$ cm. crassus.

2. **Flammula echinata** P. Henn. Engl. Jahrb. XXIII, p. 553. — Pileo carnosulo, convexo, plano, dense echinato-squarroso, squamis erectis, subconicis, margine dein evanescente, substriato, 8-20 mm. diam., aurantiaco; stipite farcto, 5-15 mm. longo, 2 mm. crasso, dense squamoso, concolori, basi subincrassato echinato; lamellis adnatis vix decurrentibus, subconfertis, ventricosis, flavis; sporis ellipsoideis, 6-8 × 3-4 $^1/_3$, episporio flavo, levi. 344

Hab. in ligno in Camerunia (Staudt).

3. **Flammula Zenkeri** P. Henn. Engl. Jahrb. XXIII, p. 553. — Pileo carnoso, convexo-explanato, flavo-ochraceo, medio squamis 345

verrucosis obscurioribus, ad marginem squamis depressis submembranaceis ornato, 3-6 cm. diam.; stipite farcto, levi, glabro, tereti, æquali, 2-3 cm. longo, $^1/_2$-1 cm. crasso, concolori; lamellis adnatis, subdecurrentibus, ventricosis, primo pallidis, dein ochraceis; sporis ellipsoideis, flavo-ochraceis, 1-guttulatis, levibus, 4-7 × $3^1/_2$-$4^1/_2$.

Hab. in ligno in Camerunia (Zenker). — *F. sapineæ* Fr. affinis.

4. **Flammula evagabunda** Britz. Hymen. Kunde, II, 1896, p. 4, f. 446. 346
— Pileo glutinosissimo vel viscido, albido vel isabellino-albo, centro dilute luteo; carne albida, basi stipitis pallide rubiginosa; lamellis cenfertis vel subconfertis, albidis, luteolis, griseo-luteolis, dein ochraceo-brunneis; stipite superne albido, inferne dilute rubiginoso; annulo evanido; sporis pallide luteis, 6-8 × 3-4, in cumulo cinnamomeis.

Hab. in foliis putrescentibus fagineis in silvis, Bavaria.

5. **Flammula Paxiana** P. Henn. in Engl. Jahrb. XXIII, 1896, p. 284. 347
— Pileo convexo-applanato, carnosulo, tenui, alutaceo, dense verrucoso-squamoso, squamis centro subconico-aculeatis obscurioribus ad marginem depressis subconcoloribus, ca. 2-3 cm. diam.; stipite fistuloso substriato, levi, p. superiore albido, subannulato-squamosulo, p. inferiore brunneolo, 3-5 cm. longo, 3 mm. crasso; lamellis adnatis, subconfertis, latis, ochraceis; sporis ellipsoideis v. subovoideis, 1-guttulatis, levibus, læte brunneis, 7-$8^1/_2$ × 4-$4^1/_2$.

Hab. in nuce Cocoes ex insul. samoënsibus importata in hortum bot. Wratislav. orta. — *F. sapineæ* affinis.

6. **Flammula rubicundula** Rea, Grev. XXII, p. 40. — Pileo 4-6 cm. 348
lato, carnoso, convexo-plano, initio viscido et innato-fibrilloso, mox levi, luteo, rubro-tincto, demum luteo-aurantiaco, margine sæpe lacerato, velo albo, dein luteolo, demum colore pilei; stipite 5-6 cm. longo, $1^1/_2$-$2^1/_2$ cm. crasso, solido, albido, apice dein rubrotincto; carne lutea, dein pallidiore; lamellis adnatis v. adnato-decurrentibus, confertis, 3-4 mm. latis, primo dilute ochraceis, dein ferrugineis; sporis ferrugineis, 9-10 × 4-5; odore nullo, sapore acri.

Hab. ad terram Wyre Forest in Britannia (C. Rea). — Affinis *F. astragalinæ.*

7. **Flammula Schinziana** P. Henn. Hedw. 1896, p. 304. — Pileo carno- 349
sulo convexo-explanato, obtuso subumbonato, aureo-ochraceo, squamis subimbricatis tecto ca. 15 mm. diametro; stipite fistuloso, striato subfibroso, pallido vel ochraceo, curvato, radicato, 3-4 cm. longo, $1^1/_2$-2 mm. crasso; lamellis adnatis, subconfertis, latis subventricosis,

ochraceis; sporis ovoideis vel ellipsoideis, basi apiculatis, 1-guttulatis 6-8 × 5-5 $^1/_2$, episporio luteo-ochraceo, levi.

Hab. ad truncos Ohampo Novæ Zelandiæ (Haeusler). — *F. sapineæ* Fr. proxima.

8. **Flammula Underwoodi** Peck, Bull. Torr. Bot. Cl. XXIII. 1896, 350
p. 415. — Pileo convexo v. subplano, sæpe irregulari, squamuloso v. furfuraceo, luteo-brunneo; lamellis latis, confertis, adnatis v. leviter decurrentibus, luteis; stipite deorsum attenuato, radicato, in longitudine brunneolo-striato, apice luteo: sporis ellipticis, ochraceis, 6-8 × 4-5 $^1/_4$.

Hab. cæspitosa ad truncos pineos, Alabama Amer. bor. (Underwood). — Ab affini *F. sapinea* dignoscitur habitu cæspitoso et stipite striato.

9. **Flammula subsapinea** P. Henn. Fungi camerun. I, in Engl. Jahrb. 351
XXII, 1895, p. 102. — Pileo carnoso, convexo-explanato, dense imbricato-squamoso, rufobrunneo, margine repando, dein rimoso involutoque, 4-5 cm. diam.; carne flava; stipite farcto, tereti, sæpe curvato, fibroso-squamuloso, concolori, 3 cm. longo, 5-6 mm. crasso; lamellis sinuoso-adnatis, interdum subdecurrentibus, subconfertis, late ventricosis, inæqualibus, aureo-brunneis; sporis ellipsoideis, flavo-brunneis, 1-guttulatis, 6-7 × 4–5.

Hab. ad truncos putres, Kamerun (Zenker et Staudt).

10. **Flammula anomala** Peck, Bull. Torr. Bot. Club. 1895, p. 202. 352
— Pileo profunde umbilicato v. infundibuliformi, sæpe irregulari, glabro, albido; lamellis angustis, confertis, decurrentibus, pallide ferrugineis; stipite brevi, irregulari, albido; sporis globosis, brunneolo-ferrugineis, 6 $^1/_4$ μ. diam.

Hab. cæspitosa ad terram, Pensylvania Amer. bor. — Pileus circiter 2 $^1/_2$ cm. latus; stipes 1 $^1/_3$-2 $^3/_4$ cm. longus.

11. **Flammula decurrens** Peck, Bull. Torr. Bot. Club. 1895, p. 489. 353
— Pileo tenui, umbilicato, centro depresso v. infundibuliformi, hygrophano, minute floccoso-squamuloso, pallide luteo v. cremeo; lamellis subdistantibus, valde decurrentibus, pallide luteis, demum ochraceis, interstitiis interdum venosis; stipite æquali v. deorsum attenuato, minute pubescente, farcto, pileo concolori; sporis ellipticis, 8-9 × 4.

Hab. ad terram udam umbrosam, Kansas Amer. bor. (Bartholomew). — Pileus fere 2 $^1/_2$ cm. latus; stipes 13-22 mm. longus, 2-4 $^1/_2$ mm. crassus

12. **Flammula rotundifolia** Britz. Hymen. Kunde, III, 1897, p. 4, 354

fig. 458. — Pileo subglabro, luteo-rubro, centro rubiginoso; carne lutea, basi stipitis obscuriore; lamellis luteis v. subvitellinis, confertis; sporis luteis, 8 × 4, in cumulo flammeis.

Hab. in silvis in Alpibus.

13. **Flammula magna** Peck, 50 Rep. p. 103 (1897). — Pileo carnoso, late convexo, molli, sicco, fibrilloso et leviter virgato, pallide flavo v. fulvo, margine demum revoluto, intus albo v. flavido; lamellis confertis, adnatis, v. subdecurrentibus, ad stipitem undulato-crispulis, 6 mm. lat., ochraceis; stipite æquali v. deorsum incrassato, carnoso-fibroso, solido elastico, fibrilloso, pileo concolore, intus lætius flavo; sporis ellipsoideis, ochraceis, 10 × 6. 355

Hab. cæspitose ad basim truncorum Westchester County Amer. bor. (Basset Jones). — Pileus 10-15 cm. lat.; stipes 7-10 cm. long., 16-24 mm. cr.

14. **Flammula rigida** Peck, 50 Rep. p. 104 (1897). — Pileo tenui, firmulo, rigidulo, convexo, dein plano-depresso, subinde margine undulato, glabro, hygrophano, udo rubiginoso-fulvo, sicco fulvo v. griseo-fulvo, carne concolore; lamellis modice confertis, adnatis, cremeo-albis, dein fulvo-ferruginascentibus; stipite æquali, rigido, leviter striato, pileo concolore, basi albo-tomentoso; sporis late ellipsoideis, 7-9 × 4-5. 356

Hab. ad fragmenta lignea vetusta, gregatim, Adirondack Mount. Amer. bor. — Pileus 2,5-4 cm. lat.; stipes 2,5-5,5 cm. long., 3-6 mm. cr.

15. **Flammula nigripes** (Bull.) Cke in litt. *Agar.* Bull. t. 344. — Cæspitosa; pileo convexo, flavo-alutaceo, levi 3-5 cm. lat., viscosulo, disco rufescente; stipite cylindraceo, deorsum crassiore, fistuloso, 6 cm. longo, 3-4 mm. cr., velutino-asperulo, melleo, deorsum nigricante; lamellis ventricosis, confertis, liberis, fuscellis. 357

Hab. ad candices in Gallia, nov.-decembr. — Odor et sapor nulli. Sec. Fries est *Collybia velutipes.*

NAUCORIA Fr. — Syll. V, p. 828, IX, p. 109, XI, p. 57.

1. **Naucoria sphærospora** P. Henn. Engl. Jahrb. XXIII, p. 553. — Pileo membranaceo, campanulato-explanato, centro subumbonato, obtuso, obscuriore, subcanescente, flavo-ochraceo, squamoso-tomentosulo, 7-11 mm. diam.; stipite fistuloso, tenaci, æquali, gracili, interdum flexuoso tortoque, concolori, fibroso-squamuloso, obsolete striato, 4 cm. longo, 1 mm. crasso; lamellis rotundato-adnatis, laxis, subventricosis, pallide ochraceis; sporis globosis, 1 grosse 358

guttulatis, 4-5 μ. diam., episporio flavo-fuscescente; basidiis clavatis.

Hab. in truncis in Camerunia (Preuss). — *N. escharoidi* Fr. affinis, sed sporis globosis diversa species.

2. **Naucoria bipindeensis** P. Henn. Engl. Jahrb. XXIII, p. 553. — 359
Gregaria; pileo submembranaceo, convexo-explanato, obtuso, levi, glabro, pruinoso, margine subtiliter radiato-striato, flavo, 3-9 mm. diam.; stipite cartilagineo, tenaci, cavo tereti v. compresso, curvato, squamuloso, 1-2 $^1/_2$ cm. longo, 1-2 mm. crasso, flavo; lamellis adnatis, haud decurrentibus, confertis, subangustis, flavis v. subochraceis; sporis ellipsoideis, basi apiculatis, levibus, 1-guttulatis, flavis, 6-8 × 3 $^1/_2$-4.

Hab. in truncis putridis in Camerunia (Zenker). — *N. Dusenii* P. Henn. affinis.

3. **Naucoria Weberiana** P. Henn. in Engl. Jahrb. XXIII, 1896, 360
p. 284. — Pileo subcarnoso, explanato, vertice papillato, flavo-brunneo, levi glabroque, 4-6 mm. diam.; stipite subfistuloso, tenaci, tenui, concolori, subpulverulento, 7-10 mm. longo; lamellis adnatis, confertis, brunneo-ochraceis, acie minute crenatis; sporis ellipsoideis v. subovoideis, flavidis, 1-guttulatis, 4-4 $^1/_2$ × 3-4.

Hab. in ramis putridis ins. samoëns (C. Weber). — *N. carpophilæ* Fr. affinis.

4. **Naucoria fulvida** Britz. Hymen. Kunde I, 1895, p. 7, fig. 495. 361
— Pileo fulvo, carne brunneo-lutea; lamellis subdistantibus, luteis v. fulvis v. brunneo-luteis, acie demum undulatis; stipite pileo concolori; sporis luteis, 9-11 × 4-5, in cumulo brunneo-luteis.

Hab. in silvaticis in Bavaria.

5. **Naucoria kilimandscharica** P. Henn. Pilze Ostafr. p. 60. — Pileo 362
campanulato-explanato, submembranaceo-carnosulo, levi, glabro, margine striatulo, 1 $^1/_2$-2 cm. lato, flavo-subbrunneo; stipite cavo, tereti v. compresso, striato, fibrilloso, 2 cm. longo, 2 mm. crasso, pallido; lamellis sinuoso-adnatis, non decurrentibus, confertis, inæquilongis, flavo-subcorneis; sporis ovoideo-ellipsoideis, intus subgranulatis, flavo-subcarnescentibus v. subfuscescentibus, 8-11 × 6-8; cystidiis ovoideo-clavatis.

Hab. ad terram in Africa trop. (Volkens).

6. **Naucoria Dusenii** P. Henn. Pilze Ostafr. p. 60. — Pileo carnosulo, 363
expanso, umbonato, flavo, umbone obscuriore, obtuso, subsquamuloso, margine tenui levi vix striato, griseo-viridulo, 4-11 mm. diam.; stipite fistuloso, gracili, tenaci, subcompresso, substriato, basi subincrassato, flavo 2-3 $^1/_2$ cm. longo, 1-1 $^1/_2$ mm. crasso; lamellis

adnatis, non decurrentibus, confertis, pallide flavis; sporis subellipsoideis, basi oblique apiculatis, pallide flavis v. fuscescentibus, 7-8 × 4-5.

Hab. inter muscos, ad truncos putridos in Africa trop. (Volkens, Dusen).

7. **Naucoria populicola** Britz. Hymen. Kunde I, 1895, p. 7, fig. 432. 364
— Pileo ochraceo, centro obscuriore furfuraceoque, fragili; lamellis subconfertis, fulvis; stipite superne ochroleuco, subdiaphano, inferne rubiginoso-luteolo furfuraceo; sporis luteis, 8 × 4.

Hab. in truncis Populi in Bavaria.

8. **Naucoria scabrispora** Britz. Hymen. Kunde 1, 1895, p. 7, f. 437. 365
— Pileo brunneo, centro obscuriore, margine ochroleuco; lamellis confertissimis, luteis vel gilvo-ochraceis; stipite sordide rubro; sporis rotundis, 4 μ. diam., acuminatis, luteis, asperis.

Hab. in silvaticis in Bavaria.

9. **Naucoria pediades** Fr.-Syll. V, p. 844. — Var. **brasiliensis** P. 366
Henn. Hedw. 1897, p. 208. — Pileo carnoso, convexo-explanato, 0,5-3 1/2 cm. diametro, obtuso, levi glabroque, margine substriato, fusco-brunneo, hygrophano; stipite cavo, æquali, 3-7 cm. longo, 2-3 mm. crasso, levi, glabro, basi bulbilloso; lamellis subconfertis, fuscobrunneis; sporis ellipsoideis, lævibus, flavo-ochraceis, 9-13 × 7-8.

Hab. ad terram pr. Blumenau Brasiliæ (Möller).

PLUTEOLUS Fr. — Syll. V, p. 859, XI, p. 60.

1. **Pluteolus luteus** Peck, Bull. Torr. Bot. Club. 1895, p. 203. — 367
Pileo tenui, primitus subovato, dein convexo v. subcampanulato, glabro, viscido, margine leviter striato, luteo; lamellis numerosis, confertis, liberis v. subadnexis, e luteolo ferrugineis; stipite gracili, fistuloso, basim versus leviter incrassato, apice striato et farinaceo-adsperso; sporis ellipticis, 10 1/2-13 × 6 1/3-7 3/4.

Hab. sub arboribus, California (Mc Clatchie). — Gregarius, fragilis; pileus 13 1/2-27 mm. latus; stipes 4-6 1/2 cm. longus, 2 1/4-4 1/2 mm. crassus.

GALERA Fr. — Syll. V, p. 860, IX, p. 113, XI, p. 60.

1. **Galera alba** Peck, Bull. Torr. Bot. Cl. 1897, p. 143. — Pileo 368
submembranaceo, campanulato, fragilissimo, udo, striato, margine lacerato, albo; lamellis angustis confertis, albis, demum brunneolo-

ferrugineis; stipite fragili, cavo, glabro, albo; sporis ellipticis, 13-16 × 8-10 ½, vulgo 1-3 nucleis præditis.

Hab. ad terram in South Dakota Amer. bor (Williams).

2. **Galera angusticeps** Peck, Bull. Torr. Bot. Cl. 1897, p. 143. — 369
Pileo tenui, anguste ac irregulariter conico v. subcylindrico, apice obtuso-acuto v. abrupte acuminato, glabro, viscido, in juventute udo obscureque ochraceo, in ætate sicco ac subalbo; lamellis confertis angustis adnatis, acie albidis, plus minusve anastomosantibus, in maturitate brunneolo-ferrugineis; stipite gracili, glabro, cavo, æquali v. basi subincrassato, albido v. luteo-tincto, in sicco nitido; sporis ellipticis, 10 ½-13 × 8.

Hab. in pratis, Pasadena Californiæ (Mc Clatchie). — Pileus 2-3 ½ cm. longus, 1-1 ⅓ cm. latus; stipes 4-8 cm. longus, 2 ½-3 ⅔ mm. crassus. *C. lateritiæ* affinis, a qua pileo viscido, margine non striato et lamellis in maturitate obscurioribus recedit.

3. **Galera fragilis** Peck, Bull. Torr. Bot. Cl. 1897, p. 144. — Pileo 370
submembranaceo, fragilissimo, late campanulato, glabro, sordide carneo; lamellis ascendentibus, adnatis, subdistantibus, obscure luteis v. subochraceis, demum ferrugineis; stipite gracili, flexuoso, cavo; sporis ellipticis, 10 ½ × ¼.

Hab. in graminosis, Kansas Amer. bor. (Bartholomew) — Pileus 7-11 mm. latus; stipes 2-3 ½ cm. longus, 1 mm. crassus.

4. **Galera versicolor** Peck, Bull. Torr. Bot. Cl. 1897, p. 143. — Pi- 371
leo tenui, fragili, convexo v. subcampanulato, udo v. subviscido, glabro, margine striato, albido, pallide luteo v. brunneolo-luteo; lamellis confertis, albis v. pallide luteis, demum rubescenti-ferrugineis; stipite æquali, cavo, fragili, leniter farinaceo v. pruinoso, basi sæpe tomentoso, albo; sporis magnitudine valde variis, 13-21 × 8-13, plerumque 1-3 nucleis præditis.

Hab. in lignis vel dejectis, South Dakota Amer. bor. — Pileus 2 ½-6 ½ cm. latus; stipes 5-10 ½ cm. longus, 2-4 ½ mm. crassus.

5. **Galera pulcra** Clem. Bot. Survey of Nebraska IV, Lincoln, 1896, 372
p. 22. — Pileo conico, lato, membranaceo, centrum versus striato-sulcato, minute denseque sericeo-tomentoso; umbone distincto, ochraceo; stipite elongato cartilagineo, attenuato, fistuloso, longitudinaliter lineato-striato-pruinoso, ochroleuco; lamellis adnexis, angustis, linearibus, leniter curvulis, ochraceis; sporis sublimoniiformibus, fulvis, eguttulatis 15-16 × 9-10.

Hab. ad terram humosam, Nebraska Amer. bor. — Pileus 2 ½ cm. latus, 2 cm. altus; stipes 7-8 cm. longus, 2 mm. crassus.

6. **Galera semilanceata** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 373
p. 415. — Pileo membranaceo, acuto, conico v. campanulato, saepe umbonato, glabro, sulcato, striato, pallide luteo; lamellis latis, ascendentibus, distantibus, adnatis, maturis luteo-ferrugineis; stipite gracili, glabro, cavo, pallido; sporis ellipticis, ferrugineis, 10 1/2-13 × 5-6 1/4.

Hab. inter folia dejecta, graminea, muscos etc. in Washington Amer. bor. — Pileus 1-1 1/3 cm. latus; stipes 4-5 cm. longus, 1-2 mm. crassus.

TUBARIA W. Sm. — Syll. V, p. 872, IX, p. 114, XI, p. 61.

1. **Tubaria venosa** P. Henn. Hedw. 1897, p. 208. — Pileo submembranaceo, tenui, convexo, flavo, levi, glabro, 5-17 mm. diametro; stipite tenui, fistuloso, levi, glabro, 1 1/2-2 cm. longo, 2 mm. crasso, pallide flavo; lamellis decurrentibus, angustis, inæquilongis, basi venoso-connexis, subfavaceis, flavo-ochraceis; sporis subglobosis, levibus, flavis 3 1/2 μ. diametro; basidiis clavatis. 374

Hab. ad terram pr. Blumenau Brasiliæ (Möller).

2. **Tubaria tenuis** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 415. 375
— Pileo membranaceo, hemisphærico v. convexo, obtuso v. subumbilicato, glabro, hygrophano, udo rubescenti-cinnamomeo, sicco cremeo v. pallide ochraceo, margine subtiliter striato v. sulcato-striato; lamellis 2-5 mm. latis, distantibus, ventricosis, adnatis v. leviter decurrentibus, luteo-ochraceis; stipite gracili, flexuoso, cavo, apice pruinoso, basi pubescente, cremeo v. pallide luteo; sporis ellipticis, 8 × 5.

Hab. inter muscos, California (Mc Clatchie). — Pileus 1-1 3/4 cm. latus; stipes 2-5 cm. longus, 2 mm. crassus.

3. **Tubaria pallescens** Peck, Bull. Torr. Bot. Club. 1895, p. 202. — 376
Pileo carnoso sed tenui, convexo v. subplano, centro interdum depressulo, glabro, hygrophano, vivo lateritio, sicco luteolo v. cremeo; lamellis latis, adnexis v. subdecurrentibus, alutaceis, demum brunneolo-ferrugineis; stipite gracili, fistuloso, luteolo, basi mycelio albo vestito; sporis ellipticis, 7 3/4 × 4.

Hab. in lignis et foliis, California (Mc Clatchie). — Pileus 1 1/4-3 1/3 cm. latus; stipes 2 3/4-4 cm. longus, 1-2 1/4 mm. crassus.

4. **Tubaria ptychophylla** Pat. Enum. Champ. Tunisie. 1892, p. 2, 377
tab. I, fig. 1. — Pileo convexo, rotundato, dein expanso, centro prominente, glabro, nitido, in juventute levi, dein rugoso, rigido, fulvo, centro pallidiore, margine incurvato; stipite rigido, gracili

glabroque, cavo, cylindraceo, basi paululum incrassato, pallide luteolo; lamellis concoloribus, non numerosis, confertis, arcuatis, crassis, obtusis, aliis decurrentibus, aliis brevioribus et stipitem non attingentibus; sporis ovalibus, levibus, pallide ochraceis, 8-10 × 4-5.

Hab. ad terram inter muscos in Tunisia.

CREPIDOTUS Fr. — Syll. V, p. 876, IX, p. 115, XI, p. 62. — Ad hoc genus, teste Cooke in litt., spectat *Pleurotus Testudo* (Berk.) Sacc. V, n. 1512, ob sporas ochraceo-fuscas.

1. **Crepidotus togoënsis** P. Henn. Fungi camerun. I in Engl. Jahrb. XXII, 1895, p. 102. — Pileo membranaceo-carnosulo, primo resupinato, dein expanso, reniformi v. flabelliformi, margine striato, sulcato, subrepando, 5-9 mm. lato, 3-5 mm. longo, fusco-brunneo, levi; lamellis brevibus, distantibus, anastomosantibus v. veniformibus, concoloribus; sporis subglobosis, levibus, brunneis, intus granulatis, 6-8 × 5-6 μ.; basidiis clavatis, 5-7 μ. crassis. 378

Hab. ad ramos putridos, Togo, (Buettner)

2. **Crepidotus echinosporus** P. Henn. Pilze Ostafr. p. 60. — Pileo carnosulo, sessili, horizontali-affixo, reniformi convexo, tomentoso-villoso, griseo-brunneo, 3-8 mm. lato, 2-5 mm. longo; lamellis distantibus, inæquilongis, ventricosis, subdivergentibus, cinnamomeis, postice rotundatis; sporis globosis, fusco-brunneis, verrucoso-echinatis, 7-8 μ. 379

Hab. ad ligna putrida in Africa trop. (Volkens, Jungner). — *C. deplanato* Kalchbr. affinis.

3. **Crepidotus cinnabarinus** Peck, Bull. Torr. Bot. Club. 1895, p. 489. — Pileo tenui, sessili, $^3/_4$-1 cm. lato, resupinato v. reflexo, minute tomentoso v. pulverulento, cinnabarino; lamellis latiusculis, subdistantibus, acie minute rubro-flocculentis, siccis luteo-brunneis; sporis late ellipticis, $7\,^3/_4$ × 6-7. 380

Hab. ad ligna dejecta, Michigan Amer. bor.

4. **Crepidotus condensus** Bres. Hedw. 1896, p. 278. — Pusillus; pileo tenui e resupinato reflexo, convexo, postice adnato et villoso, striato-sulcato, margine crenulato, 2-4 mm. lato; lamellis valde distantibus, ventricosis, postice sinuato-adnexis, stipite excentrico, curvato, 1-2 mm., basi villosulo, pileo connato; sporis globosis, luteolis 5-6 μ. diam. 381

Hab. ad cortices dense scalariformiter disseminatus pr. Blumenau Brasiliæ (Möller).

5. **Crepidotus tener** P. Henn. in Engl. Jahrb. XXIII, 1896, p. 283. 382

— Pileo tenui, carnosulo, horizontaliter affixo, sessili, reniformi, plano, pallide griseo, 3-4 mm. longo latoque; lamellis angustis, confertis, subæquilongis, fusco-ochraceis vel ferruginosis; sporis ellipsoideis vel ovoideis, levibus, ochraceo-subfuscis, 5-6 × 4-5 1/2.

Hab. in caulibus putridis, Upolu ins. samoëns. (C. Weber).

CORTINARIUS Fr. — Syll. V, p. 889, IX, p. 117, XI, p. 64.

1. **Cortinarius arduus** Britz. Hymen. Kunde, II, 1896, p. 5 fig. 365. 383
— Pileo aureo vel brunneolo-luteo; carne luteola; lamellis subdistantibus, roseolis vel brunneolo-luteis; stipite albido-brunneo-luteo; sporis luteis, dein asperis, 10 × 8; odore *Raphani sativi.*

Hab. in nemoribus in Bavaria.

2. **Cortinarius constantissimus** Britz. Hymen. Kunde, II, 1896, p. 5, 384
fig. 364. — Pileo subnitido, rubro-luteo; carne albida vel ochraceo-luteola; lamellis subconfertis, rubiginoso-luteis; stipite luteolo, plus minusve luteo, fibroso-fasciato; sporis luteis, granulosis vel asperis, 8 × 6.

Hab. in nemoribus in Bavaria.

3. **Cortinarius pelmatosporus** C. Mart. Bull. Soc. Bot. Genève, VII, 385
1892-1894, p. 181 *(Phlegmacium).* — Pileo semigloboso, dein campanulato, convexo v. conico-campanulato, brunneo v. castaneo, centro obscuriore, 13-14 cm. lato, margine semper sulcato incurvo, dein expanso; cortina alba, persistente, fibrillosa; stipite farcto, valido, apice albo, basim versus violaceo, 12 cm. longo, apice 3-3 1/2 cm. crasso; bulbo submarginato, luteo, 6 cm. longo, 4 cm. crasso; lamellis sinuatis emarginato-adnexis, colore variis, rubescentibus, lilacinis v. pallide flavis, irregulariter confertis, inæqualibus, una alterave margine dichotoma; sporis maximis; carne albida, apice stipitis lilacina, basim versus flava.

Hab. ad terram sub quercubus in Helvetia.

4. **Cortinarius cæsius** Clem. Bot Survey of Nebraska IV, Lincoln. 386
1896, p. 22. — Pileo e campanulato-convexo explanato, carnoso, glabro, haud vel vix viscido, margine involuto, obscure cœruleo-violaceo, denique brunneo-punctato; carne cæsia, immutabili; stipite fibroso-carnoso, solido, superne violaceo, inferne ochroleuco, turbinato-bulboso, ætate subgloboso-bulboso, margine bulbi atque basi stipitis violaceis, pseudoannulato, cortina pallide cæsia; lamellis adnatis, subdistantibus, ex albo cinnamomeis, haud violaceis; sporis fulvo-brunneis, verrucosis, subellipticis v. globosis, 8-10 × 7-8.

Hab. in silvis, Nebraska Amer. bor. — Pileus 4-8 cm. latus;

stipes 1-5 cm. longus, 1-1 $^1/_2$ cm. crassus; bulbus 3-4 cm. altus, 4 cm. latus *C. glaucopodi* Schaeff affinis.

5. **Cortinarius fœtidus** Karst. Hedw. 1896, p. 44. — Pileo carnoso, 387
tenui, orbiculari, convexo-plano, obtuso, levi, viscoso, nitenti, fulvo-lutescenti, vix hygrophano, carne albida, c. 3 cm. lato; stipite medullato. molli, æquali, glabro, nudo, candido, c. 7 cm. longo et 1 cm. crasso; lamellis adnatis confertis albidis, mollissimis, antice subdeliquescentibus; sporis ovalibus v. late ellipsoideis, flavescentibus, levibus, 5-7 × 3-4.

Hab. in paroecia Tammela pr. prædium Saaris in Fennia. — Sapor valde amarus, odor fœtens *Cortinarii tragani. C. emollito* affinis, odore autem fœtido, margine pilei regularis membranaceo, stipite longiore lamellisque confertis distinctus.

6. **Cortinarius intrusus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 388
p. 416. — Pileo carnoso, tenui, convexo-expanso, glabro, udo subviscido, margine interdum radiato-rugoso, luteolo, rubescenti-tincto, carne alba; lamellis tenuibus, confertis, postice rotundatis, primo albidis v. cremeo-albis, dein cinnamomeis, acie sæpe serratis; stipite æquali v. leviter attenuato, farcto v. cavo, interdum apice amœne striato, in juventute minute floccoso, mox glabro, albo; sporis late ellipticis, brunneo-cinnamomeis, 6 $^1/_4$–8 × 4-5 $^1/_4$.

Hab. in calidariis in Massachusetts, Amer. bor. — Pileus 2 $^1/_2$-6 cm. latus; stipes 3-8 cm. longus, $^3/_4$-1 $^1/_2$ cm. crassus. *C. multiformi* peraffinis.

7. **Cortinarius virgatus** Peck, Bull. Torr. Bot. Club. 1895, p. 203. 389
— Pileo crasso, carnoso hemisphærico v. convexo, obtuso v. subumbonato, vix viscido, olivaceo-ochraceo, fibrillis rubris conspicue virgato; lamellis subdistantibus, adnexis, primo subcinnamomeis, dein ex ochraceo-rubro brunneis; stipite brevi, firmo solido, basi dilatato et fibrilloso, pallide ochraceo; sporis subglobosis v. late ellipticis, 6 $^1/_4$-7 $^3/_4$ × 5 $^1/_4$-6 $^1/_4$.

Hab. sub quercubus, California (Mc Clatchie). — Pileus 8-10 $^1/_2$ cm. latus; stipes circiter 5 $^1/_2$ cm. longus, 1 $^3/_4$-2 $^3/_4$ cm. crassus.

8. **Cortinarius griseo-lilacinus** Britz. Hymen. Kunde, I, 1895, p. 11. 390
fig. 344. — Pileo glutinoso, lilacino vel griseo-lilacino; carne pallide lilacina; lamellis distantibus v. subdistantibus, lilacinis v. lilacino-rubiginosis; stipite glutinoso; annulo rufo; sporis luteis, 8 × 6, in cumulo ochraceis.

Hab. in silvaticis in Bavaria.

9. **Cortinarius subflexuosus** Britz. Hymen. Kunde, I, 1895, p. 11, 391

fig. 345. — Pileo mucoso, albido-ochraceo; lamellis subdistantibus, carneo-violaceis; carne albido-lutea, in stipite albido-lilacina; stipite mucoso, albido; annulo cinnabarino; sporis fulvis, 9-10 × 7-8.

Hab. in silvaticis in Bavaria.

10. **Cortinarius subluteolus** Britz. Hymen. Kunde, I, 1895, p. 11, fig. 346. — Pileo viscido, vitellino-albido; carne albida; lamellis pallide fulvis; stipite pileo concolori; annulo lateritio; sporis pallide luteis, 8 × 4, in cumulo ochraceis vel melleis. 392

Hab. in silvaticis in Bavaria.

11. **Cortinarius fulvo-luteus** Britz. Hymen. Kunde I, 1895, p. 11, fig. 348. — Pileo vitellino, centro obscuriore, viscido; carne albida vel luteola; lamellis confertis, isabellinis vel gilvo-carneo-cinnamomeis; stipite viscido, albido, superne violaceo; sporis aureis, 9 × 8, in cumulo fulvis. 393

Hab. in silvaticis in Bavaria.

12. **Cortinarius perrarus** Britz. Hymen. Kunde I, 1895, p. 11, f. 349. — Pileo non viscido, fibroso, sordide ochraceo vel brunneo-luteo; carne violacea, superne albida; lamellis confertis, griseo-violaceis; stipite sericeo, subundulato, griseo-violaceo; sporis aureis, 10-11 × 6, in cumulo rubiginoso-luteis; odore farinaceo. 394

Hab. in silvaticis in Bavaria.

13. **Cortinarius floccoso-fibrillosus** Britz. Hymen. Kunde, I, 1895, p. 11, f. 350. — Pileo carneo, centro rubiginoso, margine adpresse fibroso-floccoso; carne sordide cinnamomea; lamellis rubro-cinnamomeis; stipite carneo, squamis rubiginosis; sporis luteis, 8 × 6. 395

Hab. in silvaticis in Bavaria.

14. **Cortinarius mellinus** Britz. Hymen. Kunde, I, 1895, p. 11, f. 351. — Pileo non viscido, sordide melleo, squamoso-fibroso; carne mellea vel brunneo-mellea; lamellis dilute melleis, demum cinnamomeis; stipite dilute melleo; annulo albo fibroso; sporis aureis, 10 × 8, in cumulo rubro-brunneis. 396

Hab. in silvaticis in Bavaria.

15. **Cortinarius dubitabilis** Britz. Hymen. Kunde, I, 1895, p. 12, fig. 360. — Pileo luteo-rubro, subtiliter albido-fibroso; carne alba; lamellis confertis, isabellinis; stipite albo, dilute ferruginoso-fibroso; sporis luteolis, 9-10 × 3, in cumulo rubro-luteis. 397

Hab. in silvaticis in Bavaria.

16. **Cortinarius definiendus** Britz. Hymen. Kunde, I, 1895, p. 11, fig. 354. — Pileo viscido subtiliter fibroso, rubiginoso-luteo; carne albida vel pallide brunneolo-lutea; lamellis confertis, ochraceis vel 398

rubro-brunneis; stipite albido, fibrillis maculisque luteo-rubiginosis; sporis aureis, 8-9 × 6-7, in cumulo rubiginoso-luteis.

Hab. in silvaticis in Bavaria.

17. **Cortinarius truncigenus** Britz. Hymen. Kunde, I, 1895, p. 10, fig. 335. — Pileo viscido, albido-luteo, centro rubescenti-luteo; lamellis confertis, albidis vel carneis vel lilacino-brunneolis; stipite albo; sporis luteis, 8 × 5, in cumulo rubro-luteis. 399

Hab. in silvaticis in Bavaria.

18. **Cortinarius lilacinipes** Britz. Hymen. Kunde, I, 1895, p. 10, fig. 337. — Pileo viscido, aurantiaco; carne pallide lilacina; lamellis confertis, griseo-lilacinis v. violaceis v. rubro-luteis; stipite lilacino inferne albido; sporis 12-14 × 7-9, in cumulo rubiginoso-luteis. 400

Hab. in silvaticis in Bavaria.

19. **Cortinarius cano-lilacinus** Britz. Hymen. Kunde, I, 1895, p. 10, fig. 340. — Pileo viscido cano-lilacino, centro brunneolo; carne albida; lamellis subconfertis, cinnamomeis; stipite cano-lilacino, inferne albido; sporis luteis, 8 × 6, in cumulo rubro-luteis. 401

Hab. in silvaticis in Bavaria.

20. **Cortinarius alpinus** Boud. Bull. Soc. bot. Fr. 1894, p. CCXLVI et Bull. Soc. Myc. 1895, pag. 27, tab. II, fig. 1. *(Myxacium).* — Pileo subcarnoso, convexo-campanulato, firmo, viscido, fulvo-aureo, ad marginem pallidiore; stipite curto, valido, albo, ad basim subattenuatam ochraceo, sed glutine albido infra cortinam subannulatam tecto, supra evidenter sulcato, intus dein cavo; lamellis latis, adnatis, primo pallidis, dein læte cinnamomeis, acie pallidiore; sporis majusculis, oblongo-fusiformibus, ferrugineis sub lente composita aureis, hilo bene conspicuo, intus nebuloso-guttulatis, extus levibus, 16-20 × 7-9. 402

Hab. in pascuis alpinis pr. hospitium Grand-Saint-Bernard, Helvetia. — Curtus, circiter 3 cm. altus et totidem latus, sat robustus.

21. **Cortinarius odorativus** Britz. Hymen. Kunde, III, 1897, p. 5, fig. 371. — Pileo luteo, adpresse fibroso; carne alba, in medio stipitis cæsia; lamellis confertis, griseo-cæsiis, dein ochraceis; stipite ochroleuco; sporis ellipticis, luteis, uno apice acuminatis, 8 × 4, in cumulo fulvis; odore grato. 403

Hab. in silvis pr. Epagny in Alpibus.

22. **Cortinarius saporatus** Britz. Hymen. Kunde III, 1897, p. 5, fig. 369. — Pileo viscido, rubicundo-luteolo; carne alba; lamellis confertis, lutescenti-albis, dein griseo-carneis; stipite albido; sporis 404

levibus luteis, uno apice acuminatis, 12-13 × 6-7, in cumulo brunneo-fulvis; sapore miti, grato.

Hab. in silvis pr. Epagny in Alpibus.

23. **Cortinarius rimosus** Peck, 48 Rep. 1896, p. 12. — Pileo carnoso, 405
firmo, convexo v. plano, glabro, pallide griseo-violaceo dein rubenti-brunneo tincto, cute in squamas adpressas erumpente dein varie rimosa; carne albida; lamellis latiusculis, distantibus, subventricosis, emarginatis, violaceis, demum ochraceo-brunneis; stipite æquali v. basi incrassatulo, cum cortina albo-sericeo, intus violaceo-tincto; sporis subellipsoideis, 10-12 × 5-7, sæpius 1-nucleatis.

Hab. in graminosis silvaticis, Westport Amer. bor. — Pileus 5-10 cm. lat.; stipes 4-8 cm. long., 8-12 mm. cr. — *C. canino* subaffinis.

24. **Cortinarius Karstenii** Sacc. et Syd. Sic nominandus est *C. olivascens* Karst. Sacc. Syll. XI, p. 68, quum exstet anterior *C. olivascens* (Batsch) Fr.

25. **Cortinarius Montellicus** Sacc. et Syd. Sic dicendus est *C. lilacinus* Sacc., Syll. V, p. 926, extante anteriore *C. lilacino* Peck (1872).

Sect. 4. Melanosporæ

CHITONIA Fr. — Syll. V, p. 992; IX, p. 136. — Genus hoc *Clarkeinda* O. K. potius nominandum est ob homonymum a Mocino et Sessé anno 1824 institutum.

1. **Chitonia plana** Clem. Bot. Survey of Nebraska. IV, Lincoln. 1896, 406
p. 23. — Pileo carnoso, applanato, plano, glabro, ochraceo v. subfulvo; stipite brevi, firmo solido, superne attenuato, fibrilloso-squamuloso, fulvescente; volva ampla, adpressa, membranacea; lamellis liberis, ventricosis confertis, atro-cinnamomeis; sporis breviter ellipsoideis v. globosis, uniguttulatis, purpureo-fulvis, 5-6 × 4-6.

Hab. in terra Nebraska Amer. bor. — Pileus 7 cm. latus; stipes 3 cm. altus, 2 mm. crassus.

CHITONIELLA P. Henn. in Engler u. Prantl, Natürl. Pflanzenfam. 1898, p. 240. (Etym. a *Chitonia* cui affinis), — Pileus apice volvæ fragmentis asper, fibrilloso-squamosus; stipes supra medium annulatus, cetera ut in *Chitonia*.

1. **Chitoniella poderes** (B. et Br.) P. Henn. l. c. — *Chitonia poderes* B. et Br. in Syll. V, p. 992.

Hab. in insula Ceylon.

AGARICUS Linn. em. — Syll. V, p. 993, IX, p. 137, XI, p. 69.

1. **Agaricus yucatanensis** Ell. et Ev. Field Columb. Mus. I, n. 3, 1896, p. 285. — Pileo 4-5 cm. diam., tenui, alutaceo, margine sulcato-striato, disco convexo, squamis minutis, innatis, obscurioribus, persistentibus tecto; lamellis modice confertis, tenuibus, 1 mm. latis, attenuato-liberis, margine integro; stipite gracili, 5-6 cm. alto, 2-3 mm. crasso, apice attenuato; annulo medio, angusto; sporis brunneis, ovato-ellipticis, 7 × 4. 407

   Hab. ad terram humosam, Yucatan Amer. centr. — Habitus *Lepiotæ* sed sporæ brunneæ.

2. **Agaricus campester** Fr.-Sacc. Syll. V, p. 799. — **Var. desertorum** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 38. — Pileo carnoso, convexo-plano v. depresso, 5-8 cm. lato, minute adpresseque squamuloso, fusco-umbrino, margine involuto, striato ; carne firma, albido-rubella, dein pallide umbrina; stipite umbrino, cylindraceo, 3-8 cm. longo, fibroso, subfarcto, tenaci, bulbo solido, suberoso, radicato, annulo medio, membranaceo, albo; lamellis confertis, strictis, fusco-atris; sporis sphæroideo-ellipsoideis, fusco-umbrinis, 7-9 × 6 μ. 408

   Hab. in sabulosis in Tunisia.

3. **Agaricus californicus** Peck, Bull. Torr. Bot. Club. 1895, p. 203. — Pileo e subconico convexo, minute sericeo v. fibrilloso, disco purpureo v. brunneolo-purpureo tincto; carne albida; lamellis densis, liberis, carneis, dein purpureis, denique nigro-brunneis; stipite sublongo, solido v. farcto, æquali v. sursum angustiore, ad annulum sericeum distincte et subabrupte angustato, pallido v. brunneolo; sporis late ellipticis, $5\,^1/_4$-$6\,^1/_2$ × 4-$5\,^1/_4$. 409

   Hab. ad terram sub quercubus, California (Mc. Clatchie). — Pileus $2\,^1/_2$-8 cm. latus; stipes 4-8 cm. longus, $^1/_2$-1 cm. crassus. *A. hæmorrhoidario* Kalchbr. affinis, tactu immutatus.

4. **Agaricus Kiboga** P. Henn. Pilze Ostafr. p. 60 (*Psall.*). — Pileo carnoso, expanso, rufo-fusco, squamis latis adpressis imbricatis tecto, centro umbonato, obscuriore, margine tenui, 5 cm. diam.; stipite fibrilloso, basi bulboso, annulo inferiore, membranaceo, lacerato, 6-7 cm. longo, 4 mm. crasso; lamellis liberis, confertis, deinde atris; sporis ellipsoideis, fusco-purpureis, 6-8 × 4-5. 410

   Hab. ad terram in Africa trop. (Holst). — Habitu externo *A. hæmorrhoidarii* Kalchbr.

STROPHARIA Fr. — Syll. V, p. 1012, IX, p 138, XI, p. 70.

1. **Stropharia cæsifolia** Peck, Bull. Torr. Bot. Club. 1895, p. 489. 411
— Pileo convexo, glabro, albo v. albido, centro interdum brunneolo; lamellis confertis, rotundatis v. emarginatis, cæsiis v. cœruleo-brunneis; stipite æquali v. basi leniter incrassato, solido, glabro, albo v. albido; annulo albo; sporis subellipticis, 10-13 × 6-8.

Hab. in pascuis sabulosis, Kansas Amer. bor. (Bartholomew). — Pileus $2^1/_2$-5 cm. latus; stipes $2^1/_2$-4 cm. longus, 4-7 mm. crassus.

2. **Stropharia paradoxa** P. Henn. Myk. Not. I, 1895, p. 4. — Pileo 412
carnoso, campanulato, umbonato-papillato, $1^1/_2$-2 cm. lato, viscoso, centro brunneo, margine late revoluto, levi glabroque; stipite flexuoso, striato, fibroso, subfistuloso, flavo, 11-12 cm. longo, 2-$2^1/_2$ mm. crasso, basi subincrassato, albo-tomentoso, annulo atrofloccoso, secedente; lamellis diverse longis, ca. 10-11, aliis late ventricosis longioribus, adnatis, subdecurrentibus, aliis brevioribus, subdistantibus flexuosis, venosis, fusco-atris; sporis longe ovoideis v. subfusoideis, levibus, fusco-brunneis v. atro-fuscis, 14-17 × 7-10; basidiis clavatis.

Hab. in fimo pr. Berolinum Germaniæ.

3. **Stropharia caryophyllacea** Britz. Hymen. Kunde I, p. 8, fig. 266. 413
— Pileo luteolo-brunneo, fibroso-furfuraceo; lamellis confertis, griseo-brunneis; stipite albo, persistenter albido-annulato; sporis brunneis, 10 × 4, in cumulo purpureo-nigris v. violaceo-nigris; odore caryophyllaceo, grato.

Hab. in silvaticis in Bavaria.

4. **Stropharia biiamellata** Peck, Bull. Torr. Bot. Club. 1895, p. 204. 414
— Pileo carnoso, convexo, albido v. luteolo; carne candida; lamellis confertis, adnatis, in maturitate purpureo-brunneis; stipite brevi, solido, albo; annulo bene evoluto, candido, in superficie striato-lamellato; sporis cllipticis, purpureo-brunneis, $10^1/_2$ × $5^1/_4$-$6^1/_4$.

Hab. ad terram, California (Mc. Clatchie). — Pileus $2^1/_2$-$5^1/_2$ cm. latus; stipes circiter $2^1/_2$ cm. longus, $^3/_4$ cm. crassus.

5. **Stropharia capitosa** Britz. Hymen. Kunde III, 1897, p. 5, fig. 284. 415
— Pileo subglabro, albo, centro luteolo; carne alba; lamellis subconfertis, griseo-violaceis v. brunneolo-violaceis; stipite albo; sporis brunneis (non luteolis), 14 × 8, in cumulo brunneis v. violaceo-brunneis; odore *Raphani sativi*.

Hab. in silvis in Bavaria.

6. **Stropharia coronilla** (Bull.) Fr.-Sacc. Syll. V, p. 1014. — Var. **virgata** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 38. — Pileo carnoso, orbiculari, convexo, fusco, centro brunneo, margine pallidiore, fibrillis minutis, adpressis, brunneis undique virgato; lamellis subliberis, ex albido cinereo-purpurascentibus, tactu rufescentibus, ventricosis confertisque; stipite cylindraceo, brevi, subfistuloso, sursum candido, infra annulum rufescente; annulo supero, pendulo, albo, rufo-marginato; contextu pilei albo, pellicula tenui, fusca tecto; sporis ovoideis, levibus, pallide violaceis, 5-6 × 4; basidiis cylindraceis, 4 sporis; cystidiis paucis, apice rotundatis, medio inflatis, basim versus attenuatis, tenuiter tunicatis, 20–25 × 8–10. 416

Hab. ad terram sub Quercubus in Tunisia. — Pileus 2–4 cm. latus; stipes 2½ cm. longus, 6–9 mm. crassus.

7. **Stropharia coprinifacies** Roll. Bull. Soc. Mycol. 1898, p. 83, t. IX, f. 1. — Pileo parce carnoso firmo, obtuso, hygrophano, conico-campanulato, dein expanso, jove pluvio valde viscoso, brunneo-fuliginoso, sicco canescente, muco æruginco maculato, 3-4 cm. lato; stipite fibrilloso, tenui, elongato, rigido, cavo, 8-10 cm. longo, 4 mm. cr., sordide albo, æruginco-tincto; carne albida; annulo medio nigro-fibrilloso; lamellis attingentibus, ventricosis, purpureo fuligineis, acie albis; sporis oblongis, variis, usque 20 × 7. 417

Hab. dense gregaria ad lignum et acus Pini Laricionis in silva Vizzavona Corsicæ.

HYPHOLOMA Fr. — Syll. V, p. 1027, IX, p. 139, XI, p. 71.

1. **Hypholoma atrifolium**, Peck. Bull. Torr. Bot. Cl. XXIII, 1896, p. 417. — Pileo submembranaceo, primo convexo v. hemisphæric o, dein late convexo, plerumque umbonato, minute et irregulariter sulcato, in maturitate apicem versus striato, hygrophano, udo ligneo-brunneo, sicco pallide luteo v. cremeo, velo fugaci; lamellis subdistantibus, adnatis, primo pallide brunneis, dein obscure brunneis v. subnigris; stipite gracili, fibrilloso, cavo, pallido v. cremeo; sporis obscure brunneis, ellipticis, 10½ × 5. 418

Hab. in fruticetis in California (Mc. Clatchie). — Gregarium, subcæspitosum; pileus 2–5½ cm. latus; stipes 2½–6½ cm. longus, 2–6 mm. crassus. Ad *H. hymenocephalum* accedit.

2. **Hypholoma longipes** Peck. Bull. Torr. Bot. Club. 1895, p. 204. — Pileo tenui, campanulato, margine interdum obscure striato, fibrilloso, demum glabro, hygrophano, vivo luteolo-brunneo, sicco brunneo v. isabellino-brunneo, margine appendiculato; velo albo, floc- 419

coso, fugaci; lamellis angustis, confertis, adnatis, albis v. albidis, demum subnigrescentibus, acie sæpe albida; stipite gracili, longo, cavo, apice striato, albo, basi tomento albo mycelioideo vestito; sporis ellipticis, 13 × 7 3/4.

Hab. ad terram inter folia dejecta, California (Mc. Clatchie). — Fragile; pileus 2 1/2-4 cm. latus; stipes 5-13 cm. longus, 1/4-2/3 cm. crassus.

3. **Hypholoma cutifractum** Peck, Bull. Torr. Bot. Club. 1895, p. 490. 420
— Pileo tenui, campanulato v. expanso, margine interdum subtiliter striato, griseo-alutaceo, disco interdum obscuriore, cuticula irregulariter rimosa; lamellis tenuibus, confertis, adnatis, ex albo v. albido roseo-brunneis; stipite longo, gracili, cavo, glabro, albo; sporis ellipticis, brunneis, 7 3/4 × 5.

Hab. ad caudices Populi italicæ, Kansas, Amer. bor. (Bartholomew). — Pileus 2-5 cm. latus; stipes 8-10 1/2 cm. longus, 2-4 1/2 mm. crassus. — *H. incerto* affine.

4. **Hypholoma jaluitense** P. Henn. Notizbl. Königl. Bot. Gart. u. 421
Mus. Berlin. 1897. N. 7, p. 228. — Pileo membranaceo, carnosulo, convexo-explanato, dein depresso, pallide fuscescente, 1-1 1/2 cm. diam.; stipite fistuloso, tereti, albo, subnitente, fibrilloso, interdum annulato (annulo membranaceo, albo), basi incrassato, tomentosulo, 1 1/2-2 cm. longo, 2-2 1/2 mm. crasso; lamellis adnatis, confertis, ex pallido violaceo-fuscis; sporis ellipsoideis, utrinque rotundatis, levibus, ex pallido fuscis, 7-8 1/2 × 4-4 1/2 μ.

Hab. ad ligna putrida, Marshall-Inseln. — *H. appendiculato* et *H. Candolleano* valde affine.

5. **Hypholoma irroratum** Karst. Hedw. 1896, p. 44. — Pileo car- 422
noso, tenui, convexo-plano, gibbo, levi, fulvo-melleo, marginem versus micore sericello-argenteo, c. 4 cm. lato; stipite tenaci, fibrilloso-sericeo, pallescenti, æquali, inferne flexuoso, ferrugineo tomentoque denso concolori obvoluto, radicato, c. 13 cm. alto et 5 mm. crasso; lamellis adnatis, confertis, sat angustis, acie dentatis, stramineo-pallidis, dein obscurioribus obsoletissimeque virentibus, sporis ellipsoideis, hyalinis, uniguttulatis, 6-8 × 4.

Hab. in sphagnosis inter muscos pr. Mustiala in Fennia. — Sapor et odor valde amarus. Solitarium. A *H. disperso* Fr. proximo micore pilei sericello-argenteo, stipite sapore statim dignoscendum.

6. **Hypholoma papillatum** Pat. Bull. Soc. Mycol. 1898, p. 54, t. VII, 423
f. 3 — Pileo carnosulo, convexo, glabro, acute umbonato, sicco,

flavo-olivaceo, centro fusco, 15-20 mm. diam., levi; stipite rigido, tenaci, cylindraceo, flavo, intus farcto, 30-40 mm. long., 3 mm. cr.; lamellis adnexis, sulphureo-virescentibus, confertis; sporis fuscis, ovoideis, apice poro impressis 6-8 × 4.

Hab. in truncis cariosis in Mexico (Maury). — Species cæspitosa *H. fasciculari* proxima.

7. **Hypholoma peltostes** Kalchbr. in Mc. Alp. Arrang. Austral. Fungi 1893, p. 32. — Carnosum, viscidum, scutiforme, demum atro-luridum; stipite deorsum incrassato basique abrupte radicante pilosoque. 424

Hab. ad terram, N. S. Wales Australiæ.

PSILOCYBE Fr. — Syll. V, p. 1043, IX, p. 140, XI, p. 72.

1. **Psilocybe sabulosa** Peck, Bull. Torr. Bot. Cl. 1897, p. 144. — Pileo convexo subumbonato, glabro, luteo; lamellis latis, subdistantibus, ventricosis, adnatis, demum purpurascenti-brunneis, acie albidis; stipite æquali, cavo, pallido v. stramineo; sporis ellipticis, 13-16 × 8. 425

Hab. ad terram sabulosam Kansas Amer. bor. (Bartholomew). — Pileus 2-2 3/4 cm. latus; stipes 2 1/2-4 cm. longus, circiter 2 mm. crassus.

2. **Psilocybe obscura** Peck, Bull. Torr. Bot. Cl. 1897, p. 144. — Pileo tenui, convexo, hygrophano, striato, tomento albo floccoso plus minusve adsperso, brunneo v. rubescenti-brunneo; lamellis latis, subdistantibus, adnatis, e brunneo subnigris, acie albo-flocculentis; stipite gracili, cavo, pileo pallidiore, basi albo-tomentoso; sporis ellipticis, 10 1/2-13 × 6 1/2-8. 426

Hab. in silvis in Kansas Amer. bor. (Bartholomew). — Pileus 1-2 cm. latus; stipes 2 1/2-4 cm. longus, circiter 2 mm. crassus.

3. **Psilocybe samoensis** P. Henn. in Engl. Jahrb. XXIII, 1896, p. 283. — Pileo carnosulo, tenui, convexo expanso, vertice conico papillato, levi glabroque, ferrugineo, 7-10 mm. diam.; stipite subfistuloso, pallido, levi, basi subincrassato, 13-16 mm. longo, ca. 1 mm. crasso; lamellis adnatis, subconfertis, fusco-cinnamomeis; sporis ellipsoideis v. subovoideis, basi apiculatis, pallide fuscis, 8-9 × 6-7. 427

Hab. in nucibus Cocoes putridis in silvis humidis in ins. Upolu ins. samoëns. (Weber).

PSATHYRA Fr. — Syll. V, p. 1060, IX, p. 142, XI, p. 73.

1. **Psathyra roseola** Clem. Bot. Survey of Nebraska IV, Lincoln. 428

1896, p. 23. — Pileo hemisphærico v. convexo, membranaceo, glabro v. minute micaceo, irregulariter ruguloso, udo vinoso, sicco incarnato; stipite fragili, fistuloso, nitido, glabro, apice granulis paucis magnis farinaceis vestito; lamellis leniter remotis, purpureo-cinnamomeis; sporis ellipsoideis, obscure purpureis, 12-13 × 7-8.

Hab. in terra Nebraska Amer. bor. — Pileus 1-2 $^1/_2$ cm. latus; stipes 4-8 cm. longus, 2 mm. crassus.

2. **Psathyra Schwabeana** P. Henn. Notizbl. Königl. Bot. Gart. u. 429
Mus. Berlin, 1897, N. 7, p. 248. — Pileo membranaceo, convexo-explanato, ex pallido fusco-brunneo, radiatim striato-subsulcato, centro venoso-rugoso, obscuriori, 1-2 cm. diam.; stipite fistuloso, tereti, glabro levique, albo, 8-16 mm. longo, 1-2 mm. crasso, basi incrassato, strigoso-tomentoso, brunneolo; lamellis adnatis, confertis, subventricosis, fusco-brunneis; sporis ellipsoideis, levibus, fuscis vel fusco-atris, 7-9 × 4-4 $^1/_2$ μ.

Hab. ad truncos putridos, Marshall-Inseln. — *Ps. obtusatæ* Fr. affinis.

3. **Psathyra Typhæ** Kalchbr.-Sacc. Syll. V, p. 1067. — Var. **Iridis** 430
Boud. Bull. Soc. Mycol. de France, 1897, p. 13, tab. I, fig. III. Minuta, 2-4 cm. alta, gracilis; pileo umbonato, fragili, fusco, ad marginem longe striato, supra præcipue ad umbonem rugoso-rivuloso, semipellucido; pediculo elongato, gracili, 1-1 $^1/_2$ mm. crasso, intus cavo, albo aut pallide fuscescente, ad apicem farinaceo, infra medium leviter flocculoso et annulo floccoso albido cingulato, ad basin bulboso sæpe pubescente et mycelio membranaceo albo ad folia adfixo; lamellis primo pallidis, dein fuscis posteaque fusco-purpureis, acie serrulatis, subliberis; sporis ellipticis pallide fusco-cinereis, plerumque fusco-badiis, intus nebulosis, 10-13 × 6-7.

Hab. ad folia putrida Iridis paludosæ, rarius Caricum vel Sparganiorum, in paludosis silvaticis in Gallia.

4. **Psathyra umbonata** Peck, 50 Rep. p. 106, (1897). — Pileo sub- 431
membranaceo, campanulato, umbonato, hygrophano, udo purpureo-brunneo, striatuloque, sicco griseo-albido, levi v. ruguloso, atomato, umbone pallidiore; lamellis latiusculis, confertiusculis, ventricosis, subadnatis, brunneo-rufis, dein purpureo-brunneis, demum nigricantibus; stipite tenui, flexuoso, cavo, albo, basi tomentosulo, supra pruinoso; sporis nigro-brunneis v. subnigris, 12-15 × 7.

Hab. ad detrita lignea, Lake Pleasant Amer. bor. — Affinis *Ps. corrugi.*

BOLBITIUS Fr. — Syll. V, p. 1073, IX, p. 143, XI, p. 74.

1. **Bolbitius marcescibilis** Britz. Hymen. Kunde, I, p. 10, fig. 6. — 432
Pileo tenuissimo, subnitido, luteo-rubro-brunneo, margine pallidiore; lamellis subconfertis, sordide rubris v. rubro-brunneis; stipite albido vel luteolo-rubro; sporis saturate luteis vel aureis, 16 × 8, in cumulo rubiginosis vel sordide rubris.

Hab. in fragmentis putridis in Bavaria.

2. **Bolbitius radians** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, 433
p. 36, tab. I, fig. 1. — Pileo carnoso-membranaceo, convexo-expanso, depresso, sulcato, viscido, pallide carneo v. ferrugineo, demum obscuriore; stipite plus minus elongato, sursum attenuato, cavo, flocculoso, albo; lamellis liberis, ferrugineis; sporis ferrugineis, ellipticis, 12-14 × 8.

Hab. in stramine putri, in fimo equino, Canada (Dearness), Ohio (Morgan) Amer. bor. — Pileus 4-6 cm. diam.; stipes 6-10 cm. longus.

COPRINUS Pers. — Syll. V, p. 1078, IX, p. 144, XI, p. 75.

1. **Coprinus Rostrupianus** Hansen, Botanische Zeit. 1897, VII, p. 125, 434
tab. II, fig. 5-7. — Pileo tenui, ex campanulato explanato, albotomentoso, decidue squamuloso; stipite albo, sursum attenuato et glabro, deorsum pubescente, basi tomento albo vestito; lamellis liberis, linearibus v. anguste lanceolatis, e griseo nigricantibus; sporis irregulariter ovoideis v. globosis, umbonatis, levibus, breve stipitatis, atro-brunneis, 8-19 μ. diam., plerumque 10-15; cystidiis lanceolatis v. clavatis.

Hab. in stercore vaccino et equino in Dania. — Mediocris; *Coprino niveo* (Pers.) Fr. proximus.

2. **Coprinus arenarius** Pat. Enum. Champ. Tunisie, 1892, p. 3, tab. I, 435
fig. 2. — Pileo vix carnoso, primitus rotundato, dein expanso-convexo, 8-12 cm. lato, 4-6 cm. alto, levi, non striato, glabro, sericeo, albo v. griseo, apicem versus squamis magnis imbricatis albis firmis crassisque tecto; lamellis numerosis, confertis, nigris, adnexis; stipite cylindraceo, albo, levi glabroque, cavo, demum in longitudine striato, 10-15 cm. longo, firmo, 8-12 mm. crasso; basi stipitis incrassato, elongato, solido, lignoso, intus albo et 3 cm. circiter longo; annulo mobili, fugaci, albo; sporis virescenti-nigris, ovalibus, levibus, magnis, 16-20 × 10-12, apice truncatis, basi apiculatis.

Hab. in sabulosis in Tunisia.

3. **Coprinus calyptratus** Peck, Bull. Torr. Bot. Club. 1895, p. 205. — 436
Pileo in maturitate squamulis paucis, griseis, floccosis ornato, ca-

lyptra persistenti, stellato-fissa, membranacea, brunneo-lutea v. subalutacea coronato, discum versus radiato-striato, ad strias grisco-flocculoso, nigro; lamellis liberis, obscure alutaceis, demum nigris; stipite æquali, cavo, albo, tactu mox nigrescente basi excepto, non annulato et non distincte volvato; sporis ellipticis, nigris, $15^1/_2$-21 × 12-13.

Hab. ad terram cultam, Kansas Amer. bor. (Bartholomew). — Pileus circiter $5^1/_2$ cm. latus; stipes 8-13 cm. longus, $^1/_2$-$^2/_3$ cm. crassus.

4. **Coprinus lanato-furfurosus** Britz. Hymen. Kunde I, 1895, p. 9, fig. 277. — Pileo albo vel albido-griseo, centro luteo-brunneo, lanuginoso-furfuraceo-farinoso; lamellis confertis vel subconfertis, griseis, dein nigris; stipite albo, diaphano; sporis brunneo-nigris, impellucidis, 16 × 10, in cumulo nigris. 437

Hab. in fimo equino in Bavaria.

5. **Coprinus incrassatus** Britz. Hymen. Kunde I, 1895, p. 9, fig. 276. Pileo albo vel griseo-albo, pulverulento-tomentoso; lamellis confertis, nigris, margine sæpe albis; stipite albo, fibroso-floccoso; sporis brunneo-atrovirentibus, impellucidis, 16 × 8, usque ad 12-14 μ. latis, in cumulo nigris. 438

Hab. in fimo equino in Bavaria.

6. **Coprinus pulverulento-floccosus** Britz. Hymen. Kunde I, 1895, p. 9, fig. 275. — Pileo albo, tenue farinaceo-floccoso; lamellis primo albicantibus, dein rubro-griseis, denique nigris; stipite albo, tenue piloso-fibroso; sporis obscure brunneis, impellucidis, 12 × 10, in cumulo nigris. 439

Hab. in fimo vaccino in Bavaria.

7. **Coprinus fuscellus** Britz. Hymen. Kunde I, 1895, p. 9, fig. 275a. — Pileo sulcato, luteo-brunneo, centro brunneo, margine griseo; lamellis primo albicantibus, vel brunneolis, dein pullis; stipite albido, sæpe inferne brunneolo; sporis brunneis vel aureo-brunneis, 6-8 × 5, in cumulo nigris. 440

Hab. ad terram in Bavaria.

8. **Coprinus grandisporus** P. Henn. Hedw. 1895, p. 331. — Pileo membranaceo, campanulato, dein explanato, sulcato plicatoque, centro squamuloso, pallidiore, brunneo-fusco, dein aterrimo, usque ad 5-6 cm. diam.; stipite cavo, gracili, usque ad 15 cm. alto, 3-6 mm. crasso, levi, glabro, pallido, basi bulbilloso; lamellis adnatis, confertis, lanceolatis, dein nigris; sporis ellipsoideis, apiculatis, nigris, 17-23 × 12-15. 441

Hab. ad terram in Erythræa (Schweinfurth).

9. **Coprinus laniger** Peck, Bull. Torr. Bot. Club. 1895, p. 491. — 442
Pileo tenui, conico v. campanulato, squamis numerosis, tomentosis v. floccosis, demum fugacibus tecto, apicem versus sulcato-striato, pallido, griseo-ochraceo v. luteo-griseo; lamellis confertis ex albido brunneolo-nigris; stipite basi vix incrassato, minute pubescente v. pruinoso, cavo, albo; sporis oblongo-ellipticis, plerunque 1-nucleatis, 8-10 1/2 × 4.

Hab. cæspitosus ad basim truncorum Populi moniliferæ, Kansas Amer. bor. (Bartholomew). — Pileus, 1/2-3 cm. latus; stipes fere 2 1/2 cm. longus, 2-5 mm. crassus. *C. micaceo* affinis.

10. **Coprinus apiculatus** Peck, Bull. Torr. Bot. Club. 1895, p. 206. 443
— Pileo membranaceo, campanulato v. profunde convexo, acuto v. apiculato, furfuraceo, discum versus plicato-striato, griseolo; lamellis paucis, subdistantibus, stipitem attingentibus, nigris; stipite filiformi, glabro, albo; sporis ellipticis, nigris, 7 3/4 × 4.

Hab. ad terram, Pennsylvania Amer. bor. — Pileus circiter 2/3 cm. latus; stipes 2 1/2-4 cm. longus, 1 mm. crassus.

11. **Coprinus Jonesii** Peck, Bull. Torr. Bot. Club. 1895, p. 206. — 444
Pileo submembranaceo, campanulato, demum late convexo v. expanso, margine mox lacerato revolutoque, in juventute apice truncato, primo squamis alutaceo-griseis v. pallide cervinis floccosis ubique tecto, dein nudo v. subnudo, rimoso-sulcato; lamellis confertis, linearibus, liberis, ex albo v. albido nigris; stipite æquali v. sursum vix acutato, minute floccoso, fioccoso, cavo, albo; sporis nigris, late ellipticis, 7 3/4-9 × 6 1/2.

Hab. in cella vinaria, Vermont Amer. bor. (Jones). — Fragilis, interdum cæspitosus; pileus 2 1/2-5 1/2 cm. latus; stipes 5 1/2-8 cm. longus, 1/2-2/3 cm. crassus. *C. fimetario* valde affinis, a quo differt præcipue apice pilei truncato, squamis et sporis minoribus.

12. **Coprinus ebulbosus** Peck, Bull. Torr. Bot. Club. 1895, p. 491. 445
— Pileo tenui, campanulato, squamis latis, superficialibus, persistentibus, albidis variegato, superficie sub cuticula leviter striata, griseo-brunneo, margine demum revoluto, lacerato; lamellis angustis, tenuibus, confertis, liberis, schistaceis, demum nigris; stipite æquali, cavo, albo; sporis ellipticis, 8-10 1/2 × 5.

Hab. cæspitosus ad basim truncorum Populi moniliferæ, Kansas, New York Amer. bor. — Pileus 5-8 cm. latus; stipes 8-16 cm. longus, 4-7 mm. crassus. *C. picaceo* valde affinis.

13. **Coprinus purpureophyllus** Jacobasch, Allgem. Bot. Zeitschr. 1896. 446

p. 146. — Pileo initio subcylindraceo, dein conico-campanulato, lacero, diaphano, 1,5-3 cm. lato, 1-2,5 cm. alto, pallide griseo-luteo, usque ad verticem plicato-sulcato, squamulis griseis, mox evanidis tecto; lamellis ex albo intense violaceo-purpureis, demum nigro-purpureis, linearibus, adscendentibus, confertis, adnexis, deliquescentibus; stipite albo, sericeo, plerumque curvato, ex basi subbulboso strigoso-villoso sursum sensim angustato, apice albo-farinaceo, ceterum glabro, fistuloso, fragilissimo, 6-7 cm. longo, basi 0,3-0,5 cm., apice 0,2-0,3 cm. crasso; sporis ellipticis, ovoideo-ellipticis v. oblique ellipticis, apice interdum truncatis, 1-2-guttulatis, purpureo-brunneis, $7\,^1/_2$-$8\,^1/_2 \times 5\,^1/_2$; odore nullo; sapore subamaro.

Hab. in ramis betulinis in prov. Brandenburgia' Borussiæ.

14. **Coprinus comatus** Fr.-Sacc. Syll. V, p. 1079. — Var. **breviceps** 447
Peck, 49 Rep. Stat. Bot. N. Jork 1896, p. 29. — Pileo subovato, dein expanso, breviore ac latiore quam in typo, 4-7 cm. alto.

Hab. ad terram, Albany Amer. bor.

15. **Coprinus gigasporus** Massee, Ann. of Bot. 1896, p. 157, fig. 3-5. 448
— Pileo elliptico, campanulato, demum revoluto, nigro, primo squamis albis adsperso, demum discum versus striato, 5-6 cm. alto; lamellis liberis, distantibus, nigris; stipite 12-17 cm. longo, niveo, æquali, cavo; sporis ellipticis, utrinque obtusis, nigris, 28-30 × 14-16.

Hab. in fimo, Brisbane Australiæ.

16. **Coprinus Strossmayeri** Schulzer, Verh. Zool. Bot. Ges. Wien. 449
XXVIII, p. 430; Massee Ann. of Bot. 1896, p. 163. — Pileo digitaliformi, dein conico-campanulato, albido-griseo, apice obscuriore, demum pallide ochraceo, squamis superficialibus secedentibus squarrosis tecto, non striato, 5-8 cm. lato; lamellis liberis; stipite 4-16 cm. longo, erecto v. ascendente, albo, pruinoso, e mycelio nigro-brunneo, compacto, ramoso oriundo; sporis 7-9 μ. longis.

Hab. ad radices arborum in Austria.

17. **Coprinus subcœruleo-griseus** Schulzer, Verh. Zool. Bot. Ges. 450
Wien. XXVIII, p. 431; Massee, Ann. of Bot. 1896, p. 156. — Pileo delicato, acute conico, dein plano, leviter striato, disco pallide subcœruleo-griseo, squamis minutis fugacibus tecto, $1\,^1/_2$-2 cm. alto latoque; lamellis adnexis; sporis 10-13 × 6-8; stipite 3-4 cm. longo, albo, pruinoso-floccoso, dein glabro, cavo.

Hab. in fimo equino in Austria.

18. **Coprinus Gilletii** Jacobasch, Allgem. Bot. Zeitschrift. 1896, p. 146. 451
Coprinus intermedius Gill. Champ. Fr. fasc. ult. p. 6 et planch. nec Penzig. — Pileo tenui, ovato-campanulato, cinereo, disco flavo,

initio pulverulento, dein glabro, margine striato; lamellis nigricantibus (6-9 c.) ovato-elongatis; stipite gracili, glabro, cavo, annulato; annulo membranaceo, distanti, fixo et erecto.

Hab. in fimo equino in Gallia.

19. **Coprinus australiensis** Massee, Ann. of Bot. 1896, p. 171, fig. 31-32. — Pileo elliptico, mox plano, demum revoluto, umbonato, subglabro, pallide flavo-brunneo, demum marginem versus cinerescente, disco obscuriore, striato, 5-7 cm. lato; carne tenuissima; lamellis liberis, latis, nigris, subdeliquescentibus, acie albidis; stipite 10-14 cm. longo, subæquali, albido; sporis limoniiformibus, nigris, 17-18 × 10-12. 452

Hab. in fimo, Brisbane Australiæ.

20. **Coprinus Baumannii** P. Henn. Engl. Jahrb. XXIII, p. 552. — Pileo tenui membranaceo, ex ovato-cylindraceo campanulato, dein expanso, vertice depresso subumbilicato, pallido-cinereo, substriato, levi, glabro, margine dein revoluto, 7-8 mm. diam.; stipite gracili æquali, cavo, levi, glabro, basi curvato, pallido, 15-17 mm. longo, 1 mm. crasso; lamellis adnatis, angustis, linearibus, ex pallido atris; sporis globosis, levibus, atris, 12-14 μ. 453

Hab. in truncis putridis in Togo Afr. occ. (Baumann). — Habitu externo *C. plicatilis,* sed sporis globosis diversa species.

21. **Coprinus Preussii** P. Henn. Engl. Jahrb. XXIII. p. 552. — Pileo carnoso, submembranaceo, ovoideo-cylindraceo campanulato-expanso, vertice applanato-umbilicato, glabro, radiatim striato subsulcato, griseo-badio, 2-2$^1/_2$ cm. alto, 3-4 cm. lato; stipite cylindraceo, æquali, cavo, pallido, fibrilloso, 7-11 cm. longo, 5-8 mm. crasso; lamellis affixis, confertis, ventricosis, primo pallidis, dein nigris; sporis ellipsoideis, 1-guttulatis, levibus, atris, 6-8 × 4-5. 454

Hab. in Camerunia (Preuss). — *C. fuscescenti* affinis.

22. **Coprinus quadrifidus** Peck, 50 Rep. p. 106 (1897). — Pileo tenui, ovali dein campanulato, demum plus minus expanso, margine revoluto, ætate juniore velo floccoso tomentoso, dein in squamulas fatiscente vestito demum denudato et cutem tenuiter striatam ostendente, albido dein griseo v. griseo-brunneo, margine undulato v. inæquali; lamellis latis, tenuibus, confertis, liberis, albidis, dein atro-purpureo-brunneis, postremo nigris; stipite æquali v. sursum leniter tenuato, cavo, floccoso squamuloso, albo, interdum prope basin annulo floccoso-evanescente prædito; sporis brunneo-nigris 7-8 × 4-5. 455

Hab. gregatim v. cæspitose in detritis ligneis v. humo uligi-

nosa sub arboribus, Portage Amer. bor. — Pileus 5-7 cm. lat.; stipes 7-10 cm. long., 6-8 mm. cr. Senio pileus centro perforatur et in lacinias 4-5 dividitur.

23. **Coprinus Staudtii** P. Henn. Engl. Jahrb. XXIII, p. 551. — 456
Pileo ovoideo, dein campanulato-explanato, membranaceo, vertice obtuse depresso, granuloso, rufo-brunneo, striato subplicatoque, flavo-griseo, circiter 1 cm. alto, 1-1 $^1/_2$ cm. diam.; stipite fistuloso, pallido, pruinoso, 1 $^1/_2$ cm. alto, 2 mm. crasso, æquali; lamellis adnatis, lanceolato-ventricosis, confertis, primo pallidis, deinde atris; sporis ovoideo-ellipsoideis, levibus, atris, 10-12 × 7-8.

Hab. locis umbrosis et siccis in Camerunia (Staudt). — *C. micaceo* Fr. affinis.

24. **Coprinus attenuatus** Gill. Champ. Fr fasc. ult. p. 6, cum ic. — 457
Pileo carnosulo, conico-campanulato, levi, glabro, margine sulcato, arescendo elevato-inflexo, vertice flavescente; lamellis adhærenti-liberis, ventricosis, latis, demum brunneo-rubescentibus; stipite longo, gracili, cavo, basim versus attenuato; sporis ovoideis nigricantibus.

Hab. ad terram humosam, uliginosam in Gallia sept.

25. **Coprinus Forquignonii** Jacob. Allg. bot. Zeitschr. 1896. Sic nominandus est *Coprinus Quéletii* Forqu.-Sacc. Syll. IX, p. 146 - quum exstet anterior *C. Quéletii* Schulz. Sacc. Syll. V, p. 1102. — Sec. Cooke in litt. exstaret *Coprinus flavipes* Pat. in Bull. Soc. mycol. Fr., sed in hoc opere desideratur.

PANÆOLUS Fr. — Syll. V, p. 1118, IX, p. 147, XI. p. 77.

1. **Panæolus Bubalorum** Pat. Journ. de Bot. 1897, p. 339. — Pileo 458
carnoso, campanulato, obtuso, levi glabroque, 1-5 cm. diam., sordide albo; stipite cylindrico æquali, striato, exannulato, 6-10 cm. longo, 3-5 mm. crasso; lamellis nigro-brunneis, adnexis; sporis nigris, ovoideo-citriformibus, 15 × 12.

Hab. in fimo bovino in Tonkin.

2. **Panæolus digressus** Peck, Bull. Torr. Bot. Club. 1895, p. 205. 459
— Pileo hemisphærico v. convexo, glabro, rubro-brunneo; lamellis latissimis, distantibus, adnatis, purpureo-nigris, acie albida; stipite brevi, basim versus floccoso-fibrilloso, apice striato, cavo, pallidiore; sporis late ellipticis, 13-15 $^1/_2$ × 9-10 $^1/_2$.

Hab. in fimo, California (Mc. Clatchie). — Pileus 1-1 $^1/_2$ cm. latus; stipes circiter 2 $^1/_2$ cm. longus, $^1/_4$ cm. crassus.

3. **Panæolus intermedius** Peck, Bull. Torr. Bot. Club. 1895, p. 205. 460

— Pileo campanulato v. convexo, glabro, udo v. hygrophano, griseolo-brunneo; lamellis ascendentibus v. subarcuatis, subdistantibus, adnatis, in maturitate nigris; stipite gracili, sæpe elongato, cavo, griseo-brunneo, apice albo-pruinoso; sporis oblongo-ellipticis, 13-15 1/2 ≈ 6 1/2-7 3/4.

Hab. ad terram, in rejectamentis, California (Mc. Clatchie). — Pileus 1 1/3-2 2/3 cm. latus; stipes 5-10 1/2 cm. longus, 1-2 1/4 mm. crassus.

PSATHYRELLA Fr. — Syll. V, p. 1126. IX, p. 149, XI, p. 77.

1. **Psathyrella minuta** P. Henn. Engl. Jahrb. XXIII, p. 552. — 461
Pileo tenui membranaceo, campanulato-explanato, cinereo-flavescenti, levi, glabro, margine substriato, 3 mm. diam.; stipite tenuissimo, albo, levi, glabro, basi discoideo, 5-8 mm. longo, vix 1/3 mm. crasso; lamellis rotundato-adnatis, latis, subventricosis, haud confertis, e pallido purpurascentibus; sporis ellipsoideis, lævibus, subatropurpureis, 4 1/2-5 1/2 ≈ 3 1/2.

Hab. in ligno in Togo Afr. occ. (Baumann). — *P. disseminatæ* et *P. consimili* affinis.

2. **Psathyrella debilis** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 418. 462
— Pileo membranaceo, campanulato, umbonato, umbonem versus striato, subhyalino, albido, demum griseolo; lamellis tenuibus, angustis, confertis, adnatis, ex albido nigris; stipite gracili, debili, flexuoso, nunquam erecto, cavo, albo; sporis late ellipticis, 13 ≈ 8.

Hab. in truncis putridis, Kansas Amer. bor. (Bartholomew). — Pileus 1 1/2-3 1/2 cm. latus; stipes 5-8 cm. longus, 2-3 1/2 mm. crassus. Statura *Psathyræ gyroflexæ.*

3. **Psathyrella gracillima** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 463
p. 417. — Pileo membranaceo, convexo v. subplano, demum discum versus striato, cæsio, disco luteo et plerumque compresso; lamellis tenuibus, confertis, postice rotundatis, adnexis v. subliberis, in juventute dilute schistaceis, demum nigris; stipite gracili, elongato, erecto, cavo, albido v. cremeo; sporis oblongo-ellipticis, 14-16 ≈ 6-8.

Hab. in ligno humido, Kansas Amer. bor. (Bartholomew). — Pileus 1 1/2-4 cm. latus; stipes 8-13 cm. longus, fere 2 mm. crassus. E vicinia *Psathyrellæ hiascentis, Ps. trepidæ, Ps. hydrophoræ* etc., sed cum nulla harum apte conjungenda.

4. **Psathyrella graveolens** Sacc. Atti d. Soc. Ven. - Trent. di Sc. 464
Nat. 2 ser. 2 vol. 2 fasc. 1896, p. 26 extr. tab. I, fig. 1 et Bull.

Soc. Myc. de Fr. 1896, p. 76. — Pileo convexo, expanso, obtuse umbonato, atro-fusco, sericeo-atomato; lamellis sat confertis, latiuscule lanceolatis, sinuatis, nigricantibus; stipite gracili, cylindrico, glabro, fusco; basidiis ovato-clavatis, curtis, 12-16 × 5-6, apice sterigmata quaterna, brevia gerentibus; sporis ovoideis v. ovoideo-oblongis, 5-6 × 2, brunneis; cystidiis ovoideis basidio brevioribus.

Hab. ad humum in calidariis horti botan. Patavini, Italia. — Pilei superficies ex cellulis amplis, globosis, prominentibus atomata. Odore gravi fere Hydnorum nec non sporarum exiguitate a ceteris affinibus differt. Species forte exotica.

5. **Psathyrella leucostigma** Peck, Bull. Torr. Bot. Club. 1895, p. 490. 465
— Pileo submembranaceo, campanulato, striato, udo cæsio-albo, sicco spadiceo, sed apice albido; lamellis confertis, ex alutaceo nigris, acie albida; stipite gracili, flexuoso, cavo, albo; sporis nigris, ellipticis, 13-16 × 8.

Hab. ad terram udam umbrosam, Kansas Amer. bor. (Bartholomew). — Pileus 9-14 mm. latus; stipes 2-4 cm. longus, 2 mm. crassus.

6. **Psathyrella Bartholomæi** Peck, Bull. Torr. Bot. Club. 1895, p. 490. 466
— Pileo tenui, subconico v. convexo, glabro, marginem versus striato, pallide brunneo; lamellis confertis, subplanis, adnatis, e brunneolo nigris; stipite gracili, flexuoso, cavo, fibrillis paucis griseolis ornato, pallide brunneo; sporis ellipticis, 10-13 × 5-6 $^1/_2$.

Hab. ad terram umbrosam, Kansas Amer. bor. (Bartholomew). — Pileus 1 $^1/_3$-3 cm. latus; stipes 2 $^1/_2$-4 cm. longus, 2 mm. crassus.

7. **Psathyrella hirta** Peck, 50 Rep. p. 107, (1897). — Pileo tenui, 467
hemisphærico, initio pilis erectis v. patentibus, fasciculatis, facile detersibilibus prædito, hygrophano, udo brunneo v. rubro-brunneo, leviter striato, sicco griseo-brunneo v. albido, carne subconcolore; lamellis latis subconfertis, adnatis, dente documenti sæpe auctis, pallidis demum nigricanti-brunneis v. nigris; stipite flexuoso, squamoso, cavo, nitido, albo; sporis ellipsoideis, nigris, 12-14 × 6-7.

Hab. subcæspitosa ad terram stercoratam umbrosam, Adirondack Mount. Amer. bor. — Pileus 8-12 mm. lat.; stipes 2,7-5 cm. long., 2-3 mm. cr.

8. **Psathyrella Clementsii** Sacc. et Syd. Sic nominanda est *Psathyrella sulcata* Clem.-Sacc. Syll. XI, p. 78, ob homonymam *Ps. sulcatam* Dun.

GOMPHIDIUS Fr. — Syll. V, p. 1137. XI, p. 68.

1. **Gomphidius nigricans** Peck, 48 Rep. 1896, p. 12. — Pileo convexo 468
v. subplano, pallide brunneo-rubro, glutine arescendo nigricante illinito; carne firma, albida; lamellis distantibus, decurrentibus, nonnullis furcatis, albis, demum fumoso-brunneis, in sicco nigris; stipite subæquali diametrum pilei superante, glutinoso, solido, initio albido, dein nigrescente, intus albido, basi rubro-tincto; sporis oblongo-fusoideis, 15-25 × 6-7.

Hab. inter coniferas, Westport Amer. bor. — Pileus 2,5-5 cm. lat.; stipes 4-7 cm. long., 4-8 mm. cr.

Fam. 2. **Polyporaceæ** Fr.

VOLVOBOLETUS P. Henn. in Engler u. Prantl, Natürl. Pflanzenfam. 1898, p. 196. — (Etym. a *volva* et *Boletus*, cui affinis). — Stipite volvato a *Boleto* recedens.

1. **Volvoboletus volvatus** (Pers.) P. Henn. l. c. — *Gyrodon volvatus* (Pers.) Opat. in Syll. VI, p. 51.

Hab. in silva pr. Mans in Gallia.

BOLETOPSIS P. Henn in Engler u. Prantl, Natürl. Pflanzenfam. 1898, p. 194 (Etym. a *Boletus* et *opsis,* facies). — Pileus initio cum stipite velo conjunctus; velum dein ruptum, partim ad pileum, partim ad stipitem remanens, stipitem ideoque annulatum reddens. Sec. P. Hennings huc pertinent *B. rufus* (Schaeff.), *B. Staudtii* P. Henn., *B. luteus* (L.), *B. flavus* (With.), *B. flavidus* (Fr.), *B. elegans* (Schum.), *B. viscidus* (Fr.), *B. pulchellus* (Fr.), *B. tridentinus* (Bres.), *B. Bresadolæ* (Quél.), *B. submoricolor* (Frost), *B. serotinus* (Frost), *B. cavipes* (Opat.).

BOLETUS Dill. — Syll. VI, p. 2. IX, p. 150. XI, p. 79.

1. **Boletus inflexus** Peck, Bull. Torr. Bot. Club. 1895, p. 207. — 469
Pileo convexo, glabro, viscido, luteo, disco sæpe rubro, margine tenui, inflexo, tubulos marginales abscondente, carne albida, tactu immutata; tubulis sublongis, adnatis, luteolis, ætate brunneo-luteis, ore minuto, glandulis rubris adsperso; stipite gracili, exannulato, solido, viscido, glandulis lividis adsperso; sporis luteolis, 10 $^1/_2$-13 × 4-5 $^1/_4$.

Hab. in silvis Amer. bor. — Pileus circiter 2 $^1/_2$ cm. latus; stipes 5 cm. longus, $^1/_2$-$^2/_3$ cm. crassus.

2. **Boletus corsicus** Roll. Bull. Soc. Myc. de Fr. 1896, p. 1, tab. I, 470
fig. 5. — Pileo pulvinato, usque ad 10 cm. et ultra diam. æquante, brunneo, cito rimoso et inde carnem luteam præbente; tubulis longis, sulphureis, demum canescentibus, decurrentibus, circum stipitem profunde sinuatis; poris aureis, minimis, rotundis; stipite pro ratione curto, fusiformi-bulboso, radicoso, ad apicem striis notato, luteo, brunneo-maculato, pustulis squamiformibus, crassis, hymenii vestigiis, exasperato, carne lutea, versus superficiem pilei flavescente et in stipite hinc inde brunnescente; sporis oblongis, pallidis, guttatis, 15-18 ≈ 5; cystidiis fusiformibus.

Hab. juxta Cistos in pinetis Corsicæ. — *B. impolito* vicinus, differt stipite rugoso.

3. **Boletus intermedius** Pat. Bull. Soc. Myc. de France. 1895. p. 86. 471
— Pileo carnoso, duro, convexo-plano, dein depresso, glabro, rubro, sinuoso, 3-5 cm. lato, margine involuto; stipite excentrico, brevi, crasso, 1 $^1/_2$ cm. longo, 8 mm. lato, cylindraceo v. ventricoso, basi curvato, farcto, duro; hymenio luteo-olivaceo; lamellis angustis 1 mm. latis, confertis, obtusis, crassis, decurrentibus, gelatinoso-mucilaginosis, venis transversalibus conjunctis et poros v. alveolos limitantibus; cystidiis nullis; basidiis claviformibus, 20-25 ≈ 8-10, 4-sterigmaticis; sporis ochraceis, ovoideis, 7-9 ≈ 5.

Hab. ad terram in Madagascar. — Exacte medius inter *Boletum* et *Paxillum*.

4. **Boletus splendidus** C. Mart. Bull. Sc. bot. Genève, VII, 1892- 472
1894, p. 190. — Pileo carnoso semigloboso, dein convexo v. pulvinato, 7-14 cm. lato, colore vario, mox rubro-brunneo, mox roseo-brunneo, interdum etiam roseo v. rubro, sed plerumque maculis luteis, viridibus v. olivaceis adsperso, rarius atro-purpureo ac centro maculis nigris variegato; stipite valido, initio napiformi, dein elongato subæquali, 4-7 cm. longo, 2-7 cm. crasso, apice læte luteo, reticulo interdum usque ad basim descendente hic rubro illic luteo notato; tubulis brevibus, dein mediocribus, luteis, dein cœrulescentibus, virescentibus v. nigrescentibus, aëri diu expositis postremo rubris, adnexis dein liberis; poris minutis rotundatis, primo luteo-lateritiis, dein luteo-aurantiacis, tactu virescentibus; carne molli, luteo-rubra, demum cœrulea, maculis purpureis notata, basi stipitis obscure purpurea v. interdum brunnea, tactu ad rubrum v. rubro-brunneum vergente; sapore grato, odore subnullo.

Hab. in silvis frondosis, pluribus locis, in Helvetia.

5. **Boletus fragilipes** C. Mart. Bull. Soc. bot. Genève, VII, 1892- 473

1894, p. 189. — Pileo convexo, carnoso, brunneo-olivaceo, partialiter purpureo ac viridi, subtomentoso, 4-6 cm. lato; carne sulphurea, dein cœrulescente, deorsum in stipite aurea, sursum purpurea maculis luteis v. viridibus adspersa; stipite inæquali, clavato, apice constricto ibique rimoso, plus minusve curvato, 5-6 cm. longo, apice 8-11 mm. crasso, basi 15-20 mm. crasso, superne nigro-purpureo, inferne luteo maculis brunneis v. rubro-brunneis adsperso; tubulis decurrentibus v. sinuato-decurrentibus, mediocribus, 7-10 mm. longis, luteo-brunneis; poris magnis, luteis, rubro-maculatis; sapore acri, odore subnullo.

Hab. in silvis in Helvetia.

6. **Boletus fuligineospermus** Britz. Hymen. Kunde. I, 1895, p. 14, fig. 75. — Pileo rubro-luteo vel lilacino vel brunneolo-fulvo, opaco, subglabro; stipite fulvo, basi pallidiore; tubulis fulvis; poris minutissimis, anguloso-subrotundis; sporis luteis, 8-10 × 3-4, in cumulo brunneo-fulvis. 474

Hab. in silvis in Bavaria.

7. **Boletus subæqualis** Britz. Hymen. I, 1895, p. 14, fig. 77. — Pileo griseo-brunneo-luteo, tomentoso; stipite luteolo, purpureo grosseque subreticulato; carne luteola, plus minus cœrulescenti, inferne cœruleo-ferruginea; tubulis flammeis vel sanguineis; poris minutis, aggregatis variabilibusve; sporis luteis, 12 × 4-4. 475

Hab. in silvis in Bavaria.

8. **Boletus validus** C. Mart. Bull. Soc. bot. Genève VII, 1892-1894, p. 190. — Pileo pulvinato, carnoso 14-17 cm. lato, ochraceo-brunneolo; carne sulphurea, sub cuticula rubro-vinosa, basi stipitis purpurea; stipite valido, 8-10 cm. longo, $4^1/_2$-$5^1/_2$ cm. crasso, subcylindrico v. ventricoso, non reticulato, sed squamoso-punctato, apice aureo, zona purpurea prædito, alibi maculis luteis, purpureis, brunneis ac etiam nigris variegato; tubulis $1^1/_2$-2 cm. longis, adnatis, luteis; poris rotundatis, majusculis, luteis; sporis guttulatis; sapore grato, odore nullo. 476

Hab. in quercetis in Helvetia.

9. **Boletus miniatus** C. Mart. Bull. Soc. bot. Genève VII, 1892-1894, p. 191. — Pileo pulviniformi, 10 cm. lato, crasso, levi, miniato; carne aurea v. roseo-rubra; stipite crasso, ventricoso, $7^1/_2$ cm. longo, levi, roseo-rubro, sursum coccineo, deorsum brunneo-fuligineo; tubulis luteis, sinuato-liberis v. sinuato-adhærentibus; poris amœne rubro-sanguineis; sapore dulci, odore alliaceo. 477

Hab. in silvaticis Helvetiæ.

10. **Boletus turbiniformis** C. Mart. Bull. Soc. bot. Genève VII, 1892-1894, p. 192. — Pileo convexo-plano, dein plano v. medio depresso, carnoso, applanato-turbinato, margine irregulari, cuticula separabili, viscoso, brunneo-ferrugineo, 5-12 cm. lato; stipite gracili, recto v. flexuoso, æquali v. sursum incrassato et deorsum attenuato, firmo, brunneo-rubro, zonato, 3-7 cm. longo, ½-1 cm. crasso; tubulis brevibus, 2-4 mm. longis, e luteo brunneis, adnexis v. decurrentibus; poris ex aureo brunneo-olivaceis, denticulatis, ovalibus v. rotundatis; carne pilei primitus rubescenti, dein purpurea, luteo-incarnata v. lutea, stipitis luteo-brunnea, dein lutea, molli; sporis minutis ovoideis, ocellatis; sapore dulci, odore nullo. 478

Hab. in pratis humidis Helvetiæ.

11. **Boletus violascens** C. Mart. Bull. Soc. bot. Gèneve, VII, 1892-1894, p. 192. — Pileo convexo, irregulari, margine involuto, levi glabroque, sicco, 5-13 cm lato, violaceo, maculis brunneis, ochraceis, rubris v. rubro-lilacinis adsperso; stipite valido, æquali v. deorsum attenuato, demum basi pileo subconcolori, albo-zonato; tubulis brevissimis, primitus vix conspicuis, demum 2 mm. longis, decurrentibus, albis, dein brunneolis; poris minutis, irregularibus, ex albo brunneolo-roseis; carne compacta, alba, dein rosea; sporis nondum visis; odore nullo; sapore subamaro. 479

Hab. sub Pinis in muscosis Helvetiæ.

12. **Boletus thibetanus** Pat. Bull. Soc. Mycol. de Fr. 1895, p. 196, tab. XIII, fig. 2. — Pileo convexo-plano, carnosulo, venis anastomosantibus reticulato, castaneo-rufo, pellicula crassa, viscosa obducto, margine appendiculato, hyalino; tubulis adnatis; poris minutis, radiantibus, olivaceis; sporis luteis, fusiformibus, levibus, 1-2-guttulatis, 10-13 × 5 μ; stipite viscoso, gracili, levi, sursum attenuato, castaneo, deorsum albicante. 480

Hab. ad terram, Thibet orient. — Pileus 4-5 cm. diam.; stipes 5-8 cm. alt., 8 mm. crasso.

13. **Boletus lacunosus** Otth Mitth. natur. Gesell. Bern. 1857, p. 37. — Pileo plano-convexo ubique lacunoso-rugoso, velutino, atro-purpureo, demum atro-brunneo, margine atro-rubro, 6-7 cm. lat.; carne flava, immutata, sub cute tamen rubro-maculata; stipite inæquali fibroso carnoso, leviter ventricoso, 6-7 cm. long., 14-16 mm. cr., striato, flavido-rubente, deorsum rhabarbarino; tubis brevibus, ore rotundo v. oblongo, sepimentis oris diam. æquantibus, atro-rubro-brunneis; sporis ellipsoideo-oblongis sordide flavo-brunneis. 481

Hab. in silvaticis Bremgartenwald Helvetiæ.

14. **Bolatus Underwoodii** Peck, Bull. Torr. Bot. Cl. 1897, p. 145. 482
— Pileo tenui convexo, demum subplano, subvelutino, læte brunneolo-rubro, ætate pallidiore; carne lutea, tactu viridi-cœrulescente; tubulis adnatis v. subdecurrentibus, viridi-luteis, tactu ad azureum vergentibus, ore minutissimo, rotundo, cinnabarino, demum brunneo-aurantiaco; stipite æquali v. sursum parum attenuato, subirregulari, solido, extus intusque luteo; sporis 10 ½-13 × 5 ½.

Hab. in silvis in Alabama Amer. bor. (Underwood). — Pileus 5-8 cm. latus; stipes 8-10 ½ cm. longus, 1-1 ½ cm. crassus.

15. **Boletus tabacinus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, p. 418. 483
— Pileo carnoso, convexo v. subplano, subglabro, sæpe rimoso-areolato, tabacino; carne in maturitate molli, pilei colore; tubulis concavis v. subplanis, circa stipitem depressis, colore pilei, ore minuto, anguloso; stipite subæquali, solido, reticulato, concolori; sporis oblongis v. subfusiformibus, 13-16 × 5 ⅓.

Hab. in terra ad margines viarum, Alabama Amer. bor. (Underwood). — Pileus 7-13 cm. latus; stipes 4-8 cm. longus, 1 ½-2 ½ cm. crassus.

16. **Boletus parvus** Peck, Bull. Torr. Bot. Cl. 1897, p. 145. — Pileo 484
convexo, demum subplano, sæpe subumbonato, subtomentoso, rubescente; carne luteo-alba, tactu ad carneum vergente; tubulis subplanis, adnatis; poris magnis, angulosis, initio læte rubris, dein rubescenti-brunneis; stipite æquali v. deorsum subincrassato, rubro; sporis oblongis, 13 × 4.

Hab. in silvis in Alabama Amer. bor. (Underwood). — Pileus 2 ½-5 cm. latus; stipes 2 ½-5 cm. longus, 4-7 mm. crassus.

17. **Boletus frustulosus** Peck, Bull. Torr. Bot. Cl. 1897, p. 146. — 485
Pileo crasso, convexo v. subplano, subglabro, rimose areolato, albo v. albido, carne alba; tubulis æqualibus, circa stipitem depressis, albidis, demum pallide brunneis; stipite æquali, solido, albido, supra reticulato; sporis 15 ½-18 ½ × 5-6 ½.

Hab. ad terram pluribus locis in America boreali. — Pileus 8-13 cm. latus; stipes 2 ½-5 cm. longus, 1 ⅓-2 ⅓ cm. crassus.

18. **Boletus isabellinus** Peck, Bull. Torr. Bot. Cl. 1897, p. 146. — Pileo 486
convexo, firmo, minute tomentoso, albido, ætate obscuricre ac glabriore; carne isabellina; tubulis adnatis, minutis, interdum stipitem versus majoribus, subrotundis, albidis; stipite subæquali, subglabro, cavo, albido; sporis subellipticis, 8-9 × 5-6 ½

Hab. in silvis, Mississippi Amer. bor. (Underwood). — Pileus 5-8 cm. latus; stipes 2 ½-5 cm. longus, 1-1 ⅓ cm. crassus.

19. **Boletus fumosipes** Peck, 50 Rep. p. 108. — Pileo convexo v. 487
subplano, minute tomentoso, leviter rivuloso, atro-olivaceo-brunneo; carne albida; tubis subplanis, tandem convexis, ore albido tandem flavido-brunneo, tactu cyaneo-atrato; stipite æquali solido, fumoso brunneo, minute (sub vitro) furfuraceo; sporis purpureo-brunneis, 12-15 × 5-7.

Hab. in silvaticis, Port Jefferson, Amer. bor. — Pileus 3-5 cm. lat.; stipes 3-5 cm. long., 6-8 mm. cr. Affinis *B. crysenthero.*

20. **Boletus rubro-punctus** Peck, 50 Rep. p. 109. — Pileo convexo 488
glabro, rubescenti-brunneo, carne flavida, immutabili; tubis subplanis, ad stipitem depressis, ore minuto, rotundo, læte aureis, tactu immutabilibus; stipite firmo, solido, sursum tenuato, flavo, punctis squamulisve rubentibus prædito; sporis olivaceo-viridulis, 13 × 4-5.

Hab. in silvis Port Jefferson, Cold Spring Harbor Amer. bor. — Pileus 3-5 cm. lat.; stipes 3-5 cm. long.; 6-12 mm. cr. Videtur affinis *B. radicanti.*

21. **Boletus auripes** Peck, 50 Rep. p. 107. — Pileo convexo, sub- 489
glabro, flavido-brunneo, interdum senio areolato-rimoso; carne flava, senio albida; tubis subplanis, ore minuto subrotundo, initio farctis, flavis; stipite subæquali, solido, levi, v. apice leviter reticulato, læte flavo, intus paullo pallidiore; sporis ochraceo-brunneis, chlorino-tinctis, 12-13 × 5.

Hab. sub Kalmia latifolia Port Jefferson Amer. bor. — Pileus 8-16 cm. lat.; stipes 8-12 cm. long., $1\,^1/_2$-$2\,^1/_2$ cm. cr. Colore aureo distincta species.

22. **Boletus illudens** Peck, 50 Rep. p 108. — Pileo convexo, sicco, 490
subglabro, flavido-brunneo v. griseo-brunneo, subinde præsertim centro rubro tincto, carne pallida v. flavida; tubis læte flavis planis v. leniter convexis, ore angulosis v. subrotundis, sæpius ad stipitem latioribus; stipite subæquali, subinde basi abrupte acutato, glabro, pallido v. flavido, ubique v. apice reticulato; sporis oblongis v. fusoideis, flavido-brunneis chlorinisque, 10-12 × 4-5.

Hab. in silvaticis Port Jefferson Amer. bor. — Pileus 4-8 cm. lat.; stipes 4-7 cm. long., 6-10 mm. cr. Affinis *B. subtomentoso.*

23. **Boletus fraternus** Peck, Bull. Torr. Bot. Cl. 1897, p. 145. — 491
Pileo convexo, dein plano v. depresso, subtomentoso, initio atro-rubro, demum sordide rubro; carne alba, tactu viridi-cœrulescente; tubulis longis, demum ventricosis circa stipitem subdepressis, leniter decurrentibus; poris magnis, angulosis v. irregularibus, dilute luteis,

tactu statim ad azureum vergentibus; stipite brevi, cæspitoso, sæpe irregulari, solido, subtomentoso, basi subvelutino, pallide rubescenti-luteo, apice basique pallidiore, intus luteo, tactu statim virescente; sporis 13 × 6 ½.

Hab. ad terram in Alabama Amer. bor. (Underwood). — Pileus 2 ½-4 cm. latus; stipes 2 ½-4 cm. longus, 7-14 mm. crassus. *Ad Boletum rubentem* accedit.

24. **Boletus fistulosus** Peck, Bull. Torr. Bot. Cl. 1897, p. 144. — 492
Pileo convexo, viscido, glabro, luteo, margine initio incurvo v. involuto, carne lutea; tubulis planis v. subventricosis, mediocribus, rotundis, adnatis vel interdum circa stipitem depressis, luteis, dissepimentis tenuibus; stipite gracili, subæquali, viscido, glabro, cavo, luteo, basi tomento mycelioideo albo tecto; sporis ellipticis, 13 × 6 ½.

Hab. in silvis in Alabama Amer. bor. (Underwood). — Pileus circiter 2 ½ cm. latus; stipes 5-10 ½ cm. longus, 7 mm. crassus.

25. **Boletus Cookei** Sacc. et Syd. Sic dicendus est *B. lacunosus* Cke. et Mass.-Syll. IX, p. 158, quum extet præcedens *B. lacunosus* Otth.

BOLETINUS Kalchbr. — Syll. VI, p. 51, IX p. 159.

1. **Boletinus borealis** Peck, Bull. Torr. Bot. Club. 1895, p. 206. — 493
Pileo carnoso, convexo obtuso v. subumbonato, brunneo-luteo, lineis rubro-brunneis obscure et reticulate striato; poris magnis, angulosis, inæqualibus, subdecurrentibus, brunneo-luteis; stipite brevi, æquali v. sursum vix angustato, brunneo-luteo, basi tomento albido mycelioideo velato; sporis oblongis, 10 ½-13 × 4-5 ¼.

Hab. ad terram arenosam, Labrador Amer. bor. (Waghorne). — Pileus 2 ½-5 ¼ cm. latus; stipes circiter 2 ½ cm. longus.

2. **Boletinus appendiculatus** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 494
p. 418. — Pileo carnoso, convexo, glabro, ochraceo-luteo, margine velo incurvo membranaceo appendiculato; carne pallide lutea, immutabili; tubulis minutis luteis, ore anguloso, inæqualibus, tactu obscurioribus, ad brunneum vergentibus; stipite solido, basi leviter incrassato, luteo; sporis pallide luteis, oblongis, 10 ½-13 × 4.

Hab. ad terram sub Pinis, Washington Amer. bor. — Pileus 10-21 cm. latus; stipes 5-8 cm. longus, 1-1 ½ cm. crassus.

GYRODON Opat. — Syll. VI p. 51; IX, p. 160; XI, p. 81.

1. **Gyrodon capensis** Sacc. Bull. Soc. Myc. de Fr. 1896. p. 68. — 495
Pileo convexo-expanso, valde subtili, 3-4 cm. lato, 1-2 mm. crasso,

ex ochraceo umbrino, levi, nitido, carne molli sed parca, pallida, margine tenui acutissimo vix reflexo; tubulis adnatis, longe decurrentibus, albidis, pruina candida (initio?) tectis, brevissimis, 0,5 mm. longis; illis pilei subregularibus ore rotundo perexiguo; illis stipitis multo latioribus, reticulato-gyrosis; stipite deorsum incrassato, 2-3 cm. crasso, longitrorsum costato, albido; sporis fusoideis, 15 × 5-6, subhyalinis, grosse guttatis.

Hab. ad terram in Capite Bonæ-Spei et Natal Africæ. — *G. Sistotremati* affinis.

POLYPORUS Mich. em. — Syll. VI, p. 55, IX, p. 161, XI, p. 82.

1. **Polyporus involutus** Britz. Hymen. Kunde, II, 1896, p. 8, f. 183. 496
— Pileo lateraliter stipitato, albido v. isabellino, interdum areolis luteo-brunneis, glabro vix fibroso, in senectute rimoso; stipite albo; poris minutissimis, oculo nudo non conspicuis, crasse tunicatis; carne alba; sporis irregulariter angulosis, luteolis, in cumulo albis, 6 × 4; sapore non ingrato.

Hab. in ericetis in Bavaria.

2. **Polyporus diminutus** Massee Journ. of Bot. 1896, p. 153, t. 357, 497
fig. 17-18. — Pileo horizontali, imbricato, conchato molli, carnoso, convexo, margine leviter incurvo, glabro, rubro-aurantiaco, 3-4 mm. diam.; carne pallide lutea; hymenio subplano, pileo concolori; poris oblongis, circiter $^3/_4$ mm. longis, dissepimentis crassis; stipite laterali, horizontali, leniter curvato, tenui, 2 mm. longo, luteo, pruinoso; cystidiis nullis; sporis hyalinis, levibus, elliptico-oblongis, 3-4 × $1\,^1/_2$.

Hab. ad basim truncorum, Victoria Australiæ (Reader).

3. **Polyporus kansensis** Ell. et Barth. Erythea 1896, p. 1. — Pileo 498
orbiculari, convexo, 10 cm. diam., dilute brunneo, minute adpresso-squamuloso, margine tenui acutoque; stipite 10-12 cm. longo 2 cm. crasso, colore pilei, glabro v. subglabro, basi nigro, subæquali v. sursum subattenuato; carne lactea, suberoso-carnosa; poris mediocribus, $^1/_3$ mm. diam., 2-$2\,^1/_2$ mm. longis, rotundis v. subangulosis, granuloso-tomentosis, decurrentibus; sporis albis, ellipticis, 6-8 × 5; basidiis firmis, cylindraceis, 6-8 μ. crassis.

Hab in trunco putrido, Kansas Amer. bor. (Bartholomew).

4. **Polyporus melanopus** Fr. – Syll. VI. p. 81. — subsp. **Hisingeri** Karst. 499
Hedw. 1896, p. 173. — A typo differt: pileo majore et crassiore, 13 cm. lato, 2,5 cm. crasso, pallidiore, glabro, stipite æquali, brunneo, 3 cm. longo, 2 cm. crasso, porisque duplo triplove majoribus, pallidis, exsiccando luteis, sporis....

Hab. ad terram in Fennia.

5. **Polyporus cryptopus** Ell. et Barth. Erythea 1896, p. 79. — Pileo 500
orbiculari, 3-4 cm. diam., griseo-albo, margine tenuissimo, involuto-repando vel etiam inflexo, levi v. leniter rugoso, sed non squamoso; stipite $1\,^1/_2$-2 cm. longo, plerumque subterraneo, basi leniter bulboso, sursum incrassato, usque ad 1 cm. vel minus; hymenio decurrente; poris ca. $^3/_4$ mm. diam., $1\,^3/_4$ mm. altis, plerumque subangulosis, margine inæquali, tomento subgranuloso tecto; sporis albis, guttulatis, obtusis v. acuminato-ellipticis, 5-7 × 3-4.

Hab. ad terram in Kansas Amer. bor. (Bartholomew).

6. **Polyporus obolus** Ell. et Macbr. Bull. Labor. Nat. Hist. Univ. 501
Jowa IV, 1896, p. 68. — Pileo carnoso, molli, albo v. pallido, glabro, delicato, rugoso, sicco, margine repando, superne plano v. leniter convexo, 2 cm. v. minus diam.; stipite cartilagineo, delicato, gracili, basi æquali v. parum aucto, brunneo, pellucido, 1-3 cm. longo, 2-3 mm. crasso; poris minutis, oculo nudo vix conspicuis, rotundis, non decurrentibus, albis, dissepimentis crassis, obtusis.

Hab. ad terram in Nicaragua (Smith).

7. **Polyporus esculentus** Britz. Hymen. Kunde. I, 1895, p. 14. 502
fig. 172. — Pileo brunneo v. griseo-brunneo, breviter fibroso, subtomentoso; stipite albo, fibroso, brunneolo-squamoso, submarginato; tubulis albis; poris minutissimis, sub lente vix conspicuis, rotundis; carne molli, eduli, in stipite tenaci; sporis hyalinis v. subluteolis, oblongo-rotundis, leniter curvulis, 7-8 × $2\,^1/_2$-3, in cumulo albis.

Hab. in ramis putridis Sarothamni scoparii in Bavaria.

8. **Polyporus evanido-squamulosus** P. Henn. Engl. Jahrb. XXII, 503
p. 90, *Polyporus squamulosus* P. Henn. Pilze Ostafr. p. 57. — Pileo pleuropode, carnoso-lento, flabelliformi v. reniformi, 6-7 cm. lato, 4-10 cm. longo, flavo, postice flavo-brunneo, squamis setulosis, rufo-brunneis, secedentibus tecto, dein subnudo, azono, margine subrepando, revoluto, primo setuloso; stipite laterali, circiter 1 cm. longo, 7-8 mm. crasso, dense setulis fasciculatis rufo-brunneis tecto; poris amplis, angulatis, laceris denticulatisque, pallidis, contextu pallido; sporis oblique ovoideis, hyalinis, guttulatis, 9-10 × 5-6.

Hab. ad truncos? in Africa tropica (Holst, Dusen). — *P. squamoso* et *hirto* affinis.

9. **Polyporus Brenningii** P. Henn. Hedw. 1897, p. 201. — Pileis 504
cæspitoso-imbricatis vel solitariis, caseoso-carnosis, modo stipitatis, modo apodibus, pallide flavis, levibus, glabris, nitentibus, 2-5 cm. latis, 2-3 cm. longis, usque ad $1\,^1/_2$ cm. crassis, carne alba; stipitibus

lateraliter confluetibus, albis, subpulverulentis; tubulis brevibus, vix 1 mm. longis; poris primo rotundatis vel oblongis, minutis, dein laceratis; sporis subovoideis vel ellipsoideis, hyalinis, 3-3 $^1/_2$ × 2 $^1/_2$-3 μ., hyalinis.

Hab. ad lignum in Columbia (Brenning).

10. **Polyporus decurrens** Underw. Bull. Torr. Bot. Cl. 1897, p. 83. 505
— Pileo subcirculari, 5 cm. diam., plano v. centro leviter depresso, brunneo v. badio, glabro; poris subalbis, 2 mm. longis, decurrentibus, subangulosis, $^1/_2$ mm. diam., dissepimentis tenuibus integris; contextu albo, carnoso, compacto, homogeneo, centro circiter 7 mm. crasso; margine tenui, sicco subinvoluto; stipite basi subbulboso, 3 cm. longo, sursum angustato, apice 1 cm. diam., subalbido.

Hab. ad terram, California.

11. **Polyporus Earlei** Underw. Bull. Torr. Bot. Cl. 1897, p. 84. — 506
Pileo 7-12 cm. diam., cinereo, centrum versus obscuriore; margine tenuissimo, sicco valde incurvo; contextu carnoso, griseolo, sicco tenui; stipite 4-5 cm. longo, 1-$^1/_2$ cm. crasso, pileo concolori; poris 1-2 mm. longis, cinereo-griseis, in juventute pallidioribus, marginem versus minutis ($^1/_2$ mm.); dissepimentis firmis, integris.

Hab. ad terram in pinetis, Alabama Amer. bor. (Earle).

12. **Polyporus favoloides** P. Henn. Engl. Jahrb. XXIII, p. 546. — 507
Pileo membranaceo-subcarnoso, suborbiculari, convexo, centro umbilicato, infundibuliformi, levi, glabro, pellucide subtessellato (in alcohole), margine piloso, 3 $^1/_2$ cm. diam.; stipite tereti, brunneo, farcto, piloso-tomentoso, 3 $^1/_2$ cm. longo, 2 mm. crasso, basi incrassato, subatro; poris plus minus amplis, oblongis, acutangulis, acie subfimbriato-denticulatis; sporis non conspicuis.

Hab. in ligno putrido in Camerunia (Preuss).

13. **Polyporus flavo-squamosus** Underw. Bull. Torr. Bot. Cl. 1897, 508
p. 84. — Pileo 15 cm. diam., flavo, viridi-tincto, squamis minutis floccosis imbricatis flavis tecto; margine subacuto, sicco plus minusve incurvo; contextu albo vel pallide flavo, carnoso, firmo, sicco sublignoso; stipite 7-8 cm. longo, 4-5 cm. crasso, subapplanato, irregulariter asperulo, pileo concolori; poris 5 mm. longis, 1 mm. latis, irregularibus, angulosis, subdecurrentibus, albis, tactu virescentibus, siccis flavis, dissepimentis tenuibus; sporis ovalibus v. ovoideis, 9 × 6, grosse 1-guttulatis.

Hab. ad terram, Alabama Amer. bor. (Earle).

14. **Polyporus hirto-lineotus** Pat. Ann. Jard. Buitenz. 1897, I, suppl. 509
p. 111. (*Leucoporus*). — Pileo obovato-subreniformi, applanato,

circiter 10 cm. diam., rufo-fusco, antice sinuato, margine recto, acuto, postice in stipitem brevem scutato dilatatum, 15 mm. longum, grosse scruposo-hirtum lateraliter attenuato, dense radiatim scabroso-lineato vel scruposo-reticulato; poris fuscis, mediis, angulosis, lateraliter compressis, 1-2 mm. latis; dissepimentis tenuibus, rigidis, subintegris, nonnullis in laminulas irpicoideas postice elongatis; contextu tenui, albo, carnoso-coriaceo.

Hab. ad truncos, Java (Massart).

15. **Polyporus retipes** Underw. Bull. Torr. Bot. Cl. 1897, p. 85. — 510
Pileo 6-15 cm. lato, brunneo, adpresso-tomentoso, demum areolato-rimoso; contextu carnoso, 2 cm. crasso, sicco tenui, albido; margine acuto; stipite excentrico, 4-6 cm. longo, 2-2 $^1/_2$ cm. crasso, basim versus flavo-albo; poris decurrentibus, albidis, magnis, 1 $^1/_2$-2 mm. latis, plerumque hexagonalibus, dissepimentis tenuibus et subtiliter laceratis.

Hab. ad terram in pinetis, Alabama Amer. bor. (Earle).

16. **Polyporus vibecinoides** P. Henn. Engl. Jahrb. XXIII, p. 546. — 511
Pileo carnoso-coriaceo, subflabelliformi, lateraliter stipitato, flavo-brunneolo, radiato obsolete striato, levi, glabro, 2-3 cm. lato longoque, margine subdenticulato (sicco involuto), contextu pallido; stipite lateraliter postice cuneato, depresso, basi tomentosulo, discoideo, 1-1 $^1/_2$ cm. longo, 2-3 mm. crasso; poris oblongis, subacutangulis, laceratis, acie denticulatis, concoloribus; sporis subglobosis, 1-guttulatis, intus granulatis, hyalino-subfuscidulis, 5-7 μ. diam.

Hab. in truncis in Camerunia et Usambara (Staudt et Holst).

17. **Polyporus fuligineo-albus** Trog in Otth Mitteil. nat. Gesell. Bern. 512
1857, p. 38. — Pileo mesopode applanato 8-12 cm. lat., leviter impresso margine sinuoso, fere lacero, sordide albo, quasi calce consperso; poris subrotundis, subæqualibus, pilis longiusculis conspersis, rufo-brunneis; stipite centrali brevissimo vix 13 mm. longo cum pileo confluente porisque exarato.

Hab. in silvaticis pr. Lanterbrunnea Helvetlæ.

18. **Polyporus laxus** Otth, Mitt. nat. Gesell. Bern 1857, p. 39. — 513
Pileo flavido-albo, compacto-carnoso, subrotundo, piloso, intus albo, indistincte zonato, parallele laxe fibroso, aquam absorbente; poris longiusculis, inæqualibus, rotundis, laceris, acie obtusa.

Hab. ad Populos dejectas pr. Zulg Helvetiæ. — Totus fungus 20 cm. lat. et long., 5 cm. cr. margine crasso obtuso. Contextus sec. fibras facile scissilis. Videtur *P. labyrinthico* affinis.

19. **Polyporus mexicanus** Pat. Bull. Soc. mycol. 1898, p. 55. — Pileo 514

fusco, sessili, dimidiato, subtriquetro, circ. 6 cm. lato, 5 cm. alto, glabro, nec zonato, nec sulcato, cuticula tenuissima, subnitenti tecto, subtus plano v. convexo, albido, margine acuto, rivuloso; contextu albido, carnoso-compacto, fragili, azono; tubulis tenuibus, 6–10 mm. long., carnosis; poris minutis angulosis, dissepimentis tenuibus, acutis, laceratis.

Hab. ad truncos coniferarum, Mexico (P. Maury). — Affinis *P. lacteo.*

20. **Polyporus gilvoides** P. Hedw. 1897, p. 201. — Pileo tenui, sub- 515
membranaceo, molli, planiusculo, omnino ochraceo, apode, sulcato-zonato, rugoso, tomentoso-velutino, ca. 2 cm. diam., margine acuto; contextu ochraceo; poris minutis, æqualibus, rotundatis, ochraceis; sporis hyalinis subflavescentibus, globosis, 3 μ.

Hab. ad truncos in prov. St. Catharina Brasiliæ (Ule).

21. **Polyporus irregularis** Underw. Bull. Torr. Bot. Cl. 1897, p. 85. 516
— Pileo irregulari, brunneolo, marginem versus pallidiore, asperulo, subtomentoso, 4-6 cm. longo, 3-4 cm. lato, margine plerumque tenui; contextu albo, floccoso-tomentoso; poris albis, 5-6 mm. longis, irregularibus, plus minusve angulosis, minutis, 14 mm. diam.; dissepimentis tenuibus, firmis, glabris.

Hab. ad truncum pineum, Alabama Amer. bor.

22. **Polyporus Kmetii** Bres. Atti R. Ac. Sc. Lett. ed Arti degli Agiati, 517
3 ser. III, fasc. 1-3. 1897, p. 70. — Pileo sessili, basi attenuato, carnoso-fibroso, tenui, convexo v. plano-subdepresso, margine undulato-repando, involuto, aurantiaco, expallente, processibus dentato-cristatis v. aculeolatis eleganter obtecto, 2-4 cm. antice producto; tubulis tenuibus, ex albo stramineis, 2-3 mm. longis; poris concoloribus, angulatis, mediocribus, acie tenui demum collapsa; substantia tenui, alba, sub epidermide pilei linea saturate aurantia; sporis hyalinis, obovatis, 4-4 $^1/_2$ × 2 $^1/_2$-2 $^3/_4$ μ.; hyphis subhymenialibus, 2 $^1/_2$-3 μ. latis.

Hab. in ramis emortuis Quercus in Hungaria (Kmet). — Species pulchella cum *Hydno cirrato*, propter processus pilei, comparanda.

23. **Polyporus Meliæ** Underw. Bull. Torr. Bot. Cl. 1897, p. 85. — 518
Pileo convexo, sordide albo, subtomentoso, anodermeo, 5-8 cm. diam., interdum coalescente, margine obtuso; contextu floccoso-suberoso, albido; poris cremeis, ætate obscurioribus, plus minusve rimosis, 5-6 mm. longis, 0,2 mm. latis, acie obtusis, dissepimentis firmis, sporis anguste oblongis, 6 × 3, hyalinis.

Hab. ad ramos Meliae Azedarach, Alabama Amer. bor.

24. **Poyporus Suberis** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 48. — 519
Pileo albido, dimidiato, subimbricato, carnoso-spongioso, compacto, pulvinato, grosse rugoso-hispido, margine tenui, acuto, inflexo; carne albida, compacta, nec fibrosa, nec zonata; poris in vivo albis, in sicco rufis, mediis, mollibus, angulatis, laceratis irpiciformibusque; dissepimentis tenuibus; sporis hyalinis, globosis v. subglobosis, 6-7 ≈ 5 μ.

Hab. in ligno Quercus Suberis in Tunisia. — Pileus 15-20 cm. latus, 8-10 cm. longus; tubuli 10-15 mm. longi. Affinis *P. boreali* Fr. et *P. spumeo* Fr.

25. **Polyporus subluteus** Ell. et Ev. Americ. Natur. 1897, p. 339. — 520
Effusus; pileo albo, breviter tomentoso, azonato, subimbricato, margine obtuso, contextu molli et flexibili, margine superiore plus minusve reflexo; poris subcolliculosis, inæqualibus, rotundis v. subsinuosis, $^1/_3$-$^3/_4$ mm. diam., $^3/_4$-1 cm. longis, siccis subluteis, intus albis, margine subdentato, dissepimentis tenuibus, carne alba non fibrosa; sporis oblongis, paululum angustatis, albis, 4-6 ≈ 1 $^1/_2$-2.

Hab. in truncis vetustis Fagi in Canada (Dearness).

26. **Polyporus resinosus** (Schrad.) Fr. — Syll. VI, pag. 137. — 521
Var. **incurvus** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 31. — Margine pilei incurvo; poris inæqualibus, angulosis, brevibus.

Hab. ad truncos, Maine Amer. bor.

27. **Polyporus perplexus** Peck, 49 Rep. Stat. Bot. N. York 1896, 522
p. 19. — Pileo suberoso-carnoso, fibroso, sessili, vulgo imbricato interdumque confluente, irregulari, piloso-tomentoso v. setoso-hispido, ferrugineo, margine subacuto sterili, intus luteo-ferrugineo zonatoque; poris 5-7 mm. longis, inæqualibus, angulosis, dissepimentis ætate brunneolo-ferrugineis; sporis ferrugineis, late ellipticis, 6-8 ≈ 5.

Hab. ad truncos Fagi, New York Amer. bor. — Pileus 5-10 $^1/_2$ cm. latus. E vicinia *Polypori arcularii, P. hispidi* etc., sed cum nullo horum apte conjungendus.

28. **Polyporus Burtii** Peck, Bull. Torr. Bot. Cl. 1897, p. 146. — Pileo 523
dimidiato, 2 $^1/_2$-5 cm. lato, tenaci, sessili v. effuso-reflexo, minute tomentoso, fumoso-albido v. pallido, carne 2-5 mm. crassa, pallida; poris 1-2 mm. longis, inæqualibus, angulosis, marginem attingentibus, fumoso-nigris, dissepimentis tenuibus.

Hab. ad truncos Betulae luteae in America boreali (Burt). *P. adusto* proximus.

29. **Polyporus saxatilis** Britz. Hymen. Kunde, II, 1896, p. 9, fig. 184. 524
— Pileo brunneo-luteo, sericeo-nitido, furrugineo, centro scrobiculato-concavo et tomentoso; stipite obscure brunneo; poris magnis, irregulariter angulosis, variis; carne in juventute ferruginea, dein rubiginosa, suberosa, fibrosa, hygrophana; sporis ellipticis, 10-11 × 6-8, in cumulo pallide brunneo-luteis; odore nullo.

Hab. ad saxa in Alpibus. — *P. perenni* affinis.

30. **Polyporus Capreae** Britz. Hymen. Kunde, II, 1896, p. 10, f. 194. 525
— Pileo ochraceo v. isabellino, non nitente, indistincte rubiginoso-zonato, sulcato, subundulato; poris minutis, subrotundis v. angulosis; carne vix zonata, suberosa, isabellina; sporis valde curvulis, hyalinis, 10-12 × 2-2 $^1/_2$; odore non ingrato.

Hab. ad truncos Salicis Capreæ in Bavaria.

31. **Polyporus repandus** Pat. Bull. Soc. Myc. de Fr. 1896, p. 133. — 526
Sessilis, dimidiatus; pileo semiorbiculari, sinuato-lobato, glabro, pallide cinereo, zonis cinereis concentricis, crebris notato, postice plus minus plicato-radiato, margine acuto; hymenio fuligineo-cinereo, plano; poris minutis, rotundis, æqualibus, dissepimentis integris; tubulis brevibus; contextu albo-lacteo, sericeo, coriaceo.

Hab. ad truncos, Ins. Reunion. — Pileus 8-15 cm. latus, 8 cm. longus et 3 mm. crassus.

32. **Polyporus Bartholomæi** Peck, Bull. Torr. Bot. Cl. XXIII, 1896, 527
p. 418. — Pileo tenui, molli, tenaci, obovato v. subspathulato, azonato, postice in basim stipitiformem applanatam angustato, margine tenui, albido; poris minutis, brevibus, subrotundis, decurrentibus, albidis.

Hab. ad ligna emortua, Kansas Amer. bor. (Bartholomew). — Pileus 1 $^1/_2$-2 $^1/_4$ cm. latus, 2 $^1/_2$ mm. crassus; habitus *Polypori humilis* Peck.

33. **Polyporus gilvus** Schwein. — Sacc. Syll. VI, p. 121. — Var. **congre-** 528
gatus Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 152. — Pileis coriaceis-sublignosis, in modo rosæ elongatæ compactæ imbricatis, (3-8 cm. crassis, 18 cm. longis), reniformibus, lobatis, radiatim sulcatis, concentrice subzonatis, superficie glabra, rugosa, ferruginosa, sæpe fusco-virescente tincta, 3-5 cm. latis, 2-3 cm. longis; carne fibrosa, ferruginosa, 1 mm. crassa; poris minimis, rotundatis, ferruginosis, 2-3 mm. longis.

Hab. ad truncos, Costa Rica.

34. **Polyporus ochraceo-cinereus** Britz. Hymen. Kunde. I, 1895, 529
p. 14, fig. 175. — Pileo hygrophano, albido, dein ochraceo, margine

griseo, tomentoso; tubulis griseis v. brunneo-violaceis; poris minutissimis, subrotundis; carne albida; sporis 3-4 × $1^1/_2$-2, subluteolis, in cumulo albidis v. luteolis

Hab. ad truncos pineos in Bavaria.

35. **Polyporus pellitus** (Karst.) Sacc. et Syd. *Bjerkandera pellita* Karst. Hedw. 1895, p. 7. — Pileo carnoso, reniformi-dilatato, convexo, levi, glabro, pellicula tecto, azono, postice sæpe porrecto, albido, 5-7 cm. lato, 1 cm. crasso, margine acuto inflexo; poris rotundis, tenuibus, integerrimis, albis, exiguis: sporis elongatis, rectis v. curvulis, 2-guttulatis, 2-3 × $^1/_2$.

Hab. in truncis ramulisque Betulae et Abietis pr. Mustiala Fenniæ. — Odor debilis, acidulo-funginus. A *P. chioneo*, ad quem proxime accedit, pellicula pilei statim dignoscitur.

36. **Polyporus aureo-marginatus** P. Henn. Fungi camerun. I, Engl. Jahrb. XXII, 1895, p. 89. — Pileo suberoso-sublignoso, tenui, flabellato, applanato, radiato-sulcato, ruguloso, obsolete zonato, cinnamomeo-gilvo, 2-3 cm. lato, circ. 2 cm. longo, postice incrassato, tuberculato, subtomentoso, aureo-flavo, margine subincrassato, repando, subcrenulato, aureo-flavo, subvilloso; carne cinnamomeo-fulva, suberosa; poris minutis, punctiformibus, griseo-cinnamomeis, rotundatis, tubulis brevissimis; sporis non visis.

Hab. ad truncos, Kamerun (Dusén). — *P. gilvo* Schw. affinis.

37. **Polyporus sericeus** Pat. Bull. Boiss. 1895, p. 53. — Pileo coriaceo, tenui, semiorbiculari, postice scutato-adfixo, margine inflexo, integro vel vix sinuato, acuto, azono, candido, pilis longis, prostratis, sericeis, albis undique tecto, 3 cm. lato, 2 cm. longo, 2 mm. crasso; hymenio carneo-albido, vibranti; tubulis brevibus; poris angulosis, $^1/_3$ mm. latis, dissepimentis integris, obtusis, glabris; contextu candido.

Hab. ad truncos vetustos, Pichincha, Æquatoria (v. Lagerheim). — *P. velutino* et *P. conchoidi* affinis.

38. **Polyporus anceps** Peck, Bull. Torr. Bot. Club. 1895, p. 207. — Effuso-reflexus v. resupinatus, a matrice inseparabilis, firmus, subsuberosus, flexilis, albus; pileo angusto, circiter $1^1/_3$ cm. lato, lateraliter elongato v. confluente, minute pubescente, interdum rugoso-rimoso; poris minutis, subrotundis, plerumque $^1/_2$-$^2/_3$ cm. longis, dissepimentis obtusis; mycelio albo.

Hab. in truncis Tsugae canadensis, Massachusetts Am. bor.

39. **Polyporus pseudoradiatus** Pat. Bull. Soc. Myc. de Fr. 1895, p. 207. — Dimidiatus, sessilis, imbricatus; pileo applanato, orbiculari,

margine acuto-repando, inciso-fimbriato, flabellatim dense radiato-cristato, cervino aut fusco-brunneo, zonis numerosis, concoloribus, antice notato; contextu lignoso, tenui, aureo-fusco, fragili; hymenio convexo-plano, obscure tabacino; poris inæqualibus, minutis, angulosis, dissepimentis tenuibus, integris; cystidiis acutis, fuscis, spiniformibus, crasse tunicatis, 23-30 × 4; sporis non visis.

Hab. ad truncos arborum in Æquatoria (v. Lagerheim). — — Pileus 6-15 cm. latus, 6 mm. altus. *P. tabacino* affinis.

40. **Polyporus Sancti-Georgii** Pat. Bull. Soc. Myc. de Fr. 1895, p. 207. — Pileo 5 cm. alto, 6-8 cm. lato, lignoso, dimidiato, unguliformi, dense pectinato-sulcato, velutino, dein glabrescente, primitus fusco-tabacino, dein fere atro, margine sinuato-undulato; contextu durissimo, crasso, fusco-tabacino, crustula tenui nigra tecto; hymenio concavo, undulato, ochraceo-fusco; poris vibrantibus, minutis, nudo oculo vix perspicuis, angulato-rotundatis, dissepimentis tenuibus, integris; tubulis brevibus, 2-3 mm. longis, fuscis, æqualibus, lignosis; cystidiis nullis; sporis levibus, ovoideis, luteis, 5-6 × 3-4 μ. 535

Hab. ad truncos arborum in Æquatoria (v. Lagerheim). — *P. conchato* affinis.

41. **Polyporus Baumanni** P. Henn. Engl. Jahrb. XXIII, p. 546. — Pileo coriaceo, tenui, rigido, flabelliformi, apode, lateraliter affixo, convexo-plano, radiato-lineato, levi, glabro, margine crenato, inciso, flavo-alutaceo, 4-7 cm. lato, 3-4 cm. longo, contextu gilvo; poris rotundato-oblongis, subamplis, brunneis, acie fimbriatis; sporis globosis, hyalinis, levibus, 4-5 μ. diam. 536

Hab. in truncis vivis in Togo Afr. occ. (E. Baumann).

42. **Polyporus pallido-micans** Britz. Hymen. Kunde III, 1897, p. 9, fig. 232. — Pileo fulvo, griseo-vel luteolo-zonato, non piloso; poris minutis, subrotundis vel subrotundo-angulatis, albido-vel griseo-luteo-micantibus, dissepimentis tenuibus; carne alba, suberoso-lignosa; sporis $7^1/_2$-8 × $2^1/_2$-3, in cumulo ochroleucis. 537

Hab. in truncis putridis Salicis in Bavaria.

43. **Polyporus luteo-cinereus** Britz. Hymen. Kunde III, 1897, p. 9, fig. 230. — Pileo sordide ochraceo basi piloso-tomentoso, margine brunneo-griseo vel albido-griseo, plerumque toroso, dense piloso-tomentoso; carne alba, suberosa, subaquosa; tubulis albis vel albidis; poris oblongo-rotundis, dein subvermicularibus; sporis luteolis, 10 × 4, in cumulo albis. 538

Hab. ad truncos Fagi in Bavaria.

44. **Polyporus mollicomus** Britz. Hymen. Kunde III, 1897, p. 9, 539

209. — Pileo albo, fibroso, rugoso, subsericeo, basi pallide rubicundo; carne molli; tubulis albis; poris magnis, irregulariter v. vermiculariter subrotundis; sporis albis, arcuatis, 5-6 × 2.

Hab. ad truncos putridos pr. Epagny in Alpibus.

45. **Polyporus mollissimus** Pat. Journ. de Bot. 1897, p. 340. — Totus candidus, mollissimus, siccitate ligneus; pileo sessili dimidiato, subtus plano, azonato, pilis erectis tomentoso, margine tenui acuto, interdum perfecte resupinato; tubulis etiam marginem pilei occupantibus, $^1/_2$-1 cm. longis, obliquis, mollibus, dissepimentis tenuibus; poris majusculis, 1 mm. diam., rotundatis, angulosis v. labyrinthiformibus, typice integris, interdum denticulatis; sporis hyalinis levibus, ovoideis, 10 × 6, centro guttulo nitente munitis; cystidiis nullis. 540

Hab. in truncis Euphorbiæ longanæ in Tonkin. — Pileus 5-10 cm. latus, $1^1/_2$ cm. crassus.

FOMES Fr. — Syll. VI, p. 150, IX p. 173, XI, p. 88.

1. **Fomes Pappianus** Bres. Ann. R. Ist. Bot. Roma, VI, 1896, p. 178. — Pileo e pulvinato ungulato, crasso, ferrugineo-umbrino, demum nigrescente, cute glabra v. primitus leviter pruinata, levi v. ruguloso-granulosa contigua, demum in stratis annosis rimosa, in specimininibus annosis e novis stratis concentrice sulcato, intus durissimo, lignoso, subfibroso, ferrugineo-umbrino, usque ad 12 cm. lato; tubulis stratosis fulvellis; poris mox fuscidulis rotundato-angulatis, mediocribus, dissepimentis crassiusculis; sporis sub microscopio luteo-aureis, ellipticis, 6-$6^1/_2$ × $4^1/_2$-5; hyphis subhymenialibus 2-3 μ. latis. 541

Hab. ad truncos Acaciæ in Somalia (Pappi et Riva). — Species hæc media inter *F. zelandicum* Cke. et *F. rimosum* Berk. A primo distinguitur pileo lignoso, non velutino, nec in formis hornotinis concentrice sulcato et sporis; a secundo pileo lætius colorato, poris duplo majoribus et sporis ellipticis. Obiter tantum inspecta specimina vetusta vix distinguuntur.

2. **Fomes fulvo-umbrinus** Bres. Hedw. 1896, p. 280. — Resupinatus; subiculo suberoso-lignoso, fulvo, valde effuso, ligno arcte adhærente; tubulis stratosis, longis, luteo-umbrinis; poris minimis, subrotundis, ferrugineo-umbrinis; sporis luteis, elongato-subellipticis, levibus 7 × 4 μ. 542

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

3. **Fomes Hæuslerianus** P. Henn. Hedw. 1896, p. 305. — Pileo rigido sublignoso, reniformi vel flabellato radiato venoso-rugoso, oli- 543

vaceo pruinoso-tomentosulo dein nudo subnigro, azono $2^1/_2$-3 cm. longo, 3-4 cm. lato, margine rigido tenui undulato crenato vel subdentato; stipite lateraliter brevi, basi disciformi olivaceo-pruinoso; contextu pallido-subflavescente; hymenio subcinereo; tubulis brevibus; poris punctiformibus, minutis, rotundatis; sporis subglobosis.

Hab. in truncis Ohampo Novæ Zelandiæ (HAEUSLER).

4. **Fomes albo-luteus** Ell. et Ev. Proc. Acad. Philad. 1895, p. 413. 544
— Effusus, connatus, circiter 1 cm. crassus, 5-6 cm. latus, immarginatus, totus resupinatus v. interdum margine angustissimo reflexo, extus intusque aurantiacus, contextu spongioso, molli; poris latis, 1-2 mm. diam., margine tenui, membranaceo, albo, denticulato.

Hab. in truncis cariosis Abietis subalpinæ, Colorado Amer. bor. (CRANDALL).

5. **Fomes minutulus** P. Henn. Fungi camerun. I, in Engl. Jahrb. 545
XXII, 1895, p. 88. — Pileis lignosis, duris, unguiformibus, parvis, lateraliter confluentibus, vertice oblique sessili-adnatis, concentrice zonato-sulcatis, subreticulato-rugosis, cinnamomeis, 1-2 cm. latis, 5-15 mm. crassis; hymenio griseo-fulvo; tubulis elongatis, confluenti-stratosis, pallide cinnamomeis; poris minutis, punctiformibus, subrotundatis, ore albo pruinosis; contextu lignoso, duro, firmo, pallide cinnamomeo; sporis subglobosis, subhyalinis, levibus, 4-$5^1/_2$ × 4-5.

Hab. ad truncos, Kamerun (DUSÉN).

6. **Fomes tinctorius** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 362. — 546
Pileo dimidiato, sessili, subunguliformi, convexo, schistaceo-brunneo, parce concentrice elevato-zonato, superficie plus minusve rimoso, contextu floccoso-fibroso et intense rubro, margine obtuso, 6-7 cm. longo latoque, 4-5 cm. crasso; poris magnis, 1-2 cm. longis, $1^1/_2$-2 mm. crassis, rubris; sporis subglobosis v. breve ellipticis, crebris, 5-6 × $3^1/_2$-$4^1/_2$.

Hab. in truncis Tsugæ canadensis, Alaska Amer. bor. — *F. lateritio* affinis, sed differt poris majoribus, non stratosis.

7. **Fomes circumstans** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 547
1895, p. 37, tab. I, fig. 4. *(Polyporus).* — Pileo duro, lignoso, pulvinato, ungulato, crasso, plus minusve stipitem circumdante, brunneo v. nigrescente, aspero, concentrice rugoso-sulcato; poris longissimis, minutis, rotundis, intus extusque albis; sporis oblongis, levibus, hyalinis, 6-7 × 4-5.

Hab. ad truncos Shepherdiæ argenteæ, South Dakota

Amer. bor. Williams). — Pileus 4-8 cm. latus, 2-5 altus et crassus. *F. pinicolæ* affinis.

8. **Fomes fasciculatus** Pat. Bull. Soc. Myc. de France 1895, p. 86. — Pileo convexo, rigido, lignoso, concentrice sulcato, radiatim plicato, crustaceo, nigrescente, glabro, 8-10 cm. lato, circiter 1 cm. crasso; hymenio concavo, rubro; tubulis longis; poris minutissimis, dissepimentis crassis; 10-15 cm. longo, 8-10 mm. crasso, farcto, intus fulvo stipite lignoso, cylindraceo, rubro-nigro, glabro, sporis ovoideo-rotundatis, ochraceis, verrucosis, 14-16 × 10-13. 548

Hab. ad caudices in regione congoana gallica (Dybowski).

9. **Fomes ferreus** Berk.-Sacc. Syll. VI, p. 200. — Forma **cinerea** P. Henn. Fungi camerun. I in Engl. Jahrb. XXII, 1895, p. 88. — Pileis subresupinatis, lignoso-duris, rugulosis, fusco-cinereis, margine crassis, contextu pallido; poris rotundato-angulatis, griseo-cinereis. 549

Hab. ad ramos, Kamerun. (Dusén).

10. **Fomes conchatus** (Pers.) Fr.-Sacc. Syll. VI, p. 174. — Var. **Bambusæ** Pat. Bull. Boiss. 1895, p. 54. — Resupinatus, separabilis, tenuis, orbicularis, margine luteo, villoso; tubulis brevibus, obliquis; cystidiis rubris v. brunneolis, spiniformibus, paucis; hyphis luteis. 550

Hab. ad culmos Bambusæ in Æquatoria.

11. **Fomes melanodermus** Pat. Ann. Jard. Buitenz. 1897, I, p. 113. *(Xanthochrous).* — Pileo dimidiato, sessili, plano, concentrice sulcato v. omnino levi, crusta atra, glabra, $^1/_2$ mm. crassa tecto, margine crasso, villoso, fusco; hymenio applanato, fusco; poris minutis, 80-100 μ., rotundis; tubulis 2-3 mm. longis; cystidiis acutis, rigidis, 20-50 × 8-10; sporis flavis, globosis, levibus, 4-5 μ. diam.; contextu lignoso, rhabarbarino. 551

Hab. in silvis, Java (Massart). — Pileus 10-12 cm. diam., $1^1/_2$-$2^1/_2$ cm. crassus.

12. **Fomes tuniseus** Pat. Bull. Soc. Mycol. de France 1897, p. 200, tab. XIII, fig. 1. *(Xanthochrous).* — Pileo unguliformi, dimidiato, lignoso, cinereo, dein fulvo et denique nigrescente, hispido v. villoso, margine tumido, rotundato, sulco bene distincto separato; trama aurata, dura, cinnamomea v. brunneola; tubulis distantibus, trametoideis; dissepimentis crassis, integris; poris rotundis; sporis ovoideo-rotundatis, brevibus, 6-7 × 5; cystidiis nullis. 552

Hab. in truncis Robiniæ Pseudacaciæ in Tunisia. — Pileus 4-5 cm. latus.

13. **Fomes ignarioides** Pat. Bull. Soc. Mycol. 1898, p. 54 (*Xantho-* 553

chrous). — Pileo dimidiato ungulato, 5-15 cm. lato, cinereo-fusco, pruinoso-velutino, dein glabrato, sublaccato, atro, profunde 1-2-sulcato, margine crasso, rotundato, obtuso, velutino, fusco v. ochraceo; contextu lignoso, radianti, concentrice zonato, fulvo-ferrugineo, subtus plano, fusco-brunneo, olivascenti; poris minutis, rotundato-angulosis, integris, dissepimentis crassis, obtusis; tubulis brevibus 2-4 mm. long., non stratosis; cystidiis nullis; sporis levibus, ovoideo-globosis, intense luteis 5 × 4.

Hab. ad truncus, Mexico (P. Maury). — A *F. igniario*. cui habitu affinis, differt sporis aureis et hymenio non stratoso.

14. **Fomes roseiporus** Pat. Ann. Jard. Buitenz. 1897, 1, suppl. 554 p. 111. — Pileo sessili, dimidiato, orbiculari, antice crenato, 10 cm. lato, 5 cm. longo, plano, concentrice sulcato-zonato, crustula fragili, glabra, opace ochraceo-fulva tecto, margine villoso, fusco-aurantiaco. obtuso; hymenio plano, incarnato, fulvo v. olivaceo maculato; poris minutis, subrotundatis; dissepimentis obtusis, integris; tubulis 6 mm. longis, incarnatis; cystidiis nullis; contextu fibroso, albo.

Hab. in silvis, Java (Massart).

15. **Fomes rhizomatophorus** P. Henn. Hedw. 1897, p. 202. — Pileo 555 coriaceo-sublignoso, duro, rigido. pleuropode, reniformi, obsolete zonato sulcatoque, cinnamomeo, 4 cm. lato, 3 cm. longo, 1-2 mm. crasso; contextu cinnamomeo; hymenio cinereo, alutaceo; tubulis brevissimis; poris minutis, rotundatis, pallide ochraceis; stipite tereti, æquali, flexuoso, ochraceo, pruinoso, tomentosulo, 8 cm. longo, 4-5 mm. crasso, basi valde elongato-radicato, flexuoso-repenti, rhizomatoideo, 17 cm. longo, inæquali, proliferante, ochraceo-tomentoso.

Hab. ad radices? pr. Rio de Janeiro Brasiliæ. — *P. Glaziovii* Berk. affinis.

16. **Fomes Pini-halepensis** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 49. 556 — Pileo sessili, dimidiato, pulvinato, unguliformi, 6-8 cm. lato, 4-5 cm. longo, crusta albida, membranacea, glabra, rimosissima tecto, margine integro, acuto v. obtuso; hymenio plano, pallide fusco (in sicco); poris minutissimis, angulosis, dissepimentis tenuibus, laceratis; contextu fusco-albido, suberoso, haud fibroso, 2-5 mm. crasso; tubulis concoloribus, 1 1/2-2 cm. longis; cystidiis nullis; sporis non visis.

Hab. in truncis emortuis Pini halepensis in Tunisia.

17. **Fomes** *(Ganoderma)* **renidens** Bres. Hedw. 1896, p. 280. — Pileo su- 557 beroso-sublignoso, flabelliformi v. reniformi, rugoso, e flavo sangui-

neo-castaneo, nitido, laccato, 5-8 cm. lato; stipite laterali, nitido, laccato, e flavo fulvo-badio, radicato; poris subhexagonis, medius, pallidis; tubulis umbrinis, contextu cinnamomeo; sporis subglobosis, asperulis, luteis, 8-10 × 8.

Hab. ad ligna pr. Blumenau Brasiliae (Moller). — Habitu, colore etc. omnino *Fomitem lucidum* (Seys.) Fr. refert, a quo praecipue sporis globosis distinguitur.

18. **Fomes** (*Ganoderma*) **valesiacus** Boud. Bull. Soc. Bot. Fr. 1894, p. CCXLV et Bull. Soc. Myc. 1895, p. 28. — Pileo sessili aut subsessili, 7 cm. aut ultra lato, dimidiato, laccato, nitente, castaneo v. umbrino-sanguineo, subconcentrice sulcato, ad marginem attenuatum, 2 mm. crassum pallidiore, ad basim circiter 3 cm. crasso; carne albida ad tubulos vix fuscescente, non fibrosa, sed hyphis tenuioribus, ramosis, hyalinis contexta, subputrescenti; tubulis 5-8 mm. longis, fuscescentibus minutis, ore rotundatis et pallidioribus; sporis fusco-brunneis v. fuscis, ovoideis, asperulis, guttula saepius unica intus farctis, 10-12 × 7. 558

Hab. ad basim truncorum Laricum pr. Zermatt in Helvetia. — *F. carnoso* Pat. subsimilis, sed carne albida adhuc carnosiore et sporis paulo minoribus diversus.

19. **Fomes** (*Ganoderma*) **Fici** Pat. Enum. Champ. Tunisie, 1892, p. 4, tab. II, fig. 1. — Major, 15-30 cm. latus; pileo semiorbiculari applanato, imbricato, basi stipitiformi brevissimo 1-2 cm. diam., marginato, concentrice zonato, sulcis distantibus, crusta cinereo-nigra v. umbrina, opaca, in juventute rubescenti v. luteola tecto, margine acuto concolori; contextu molli, pallide fulvo, sericeo, tenui, ½ cm.; poris minutis, angulosis, albidis; tubulis umbrinis, longissimis, 4-5 cm. longis; sporis brunneo-rubescentibus, ovalibus, basi truncatis, asperulis, 2-14 × 6-8. 559

Hab. ad basim truncorum Fici Caricae in Tunisia. — *F. resinaceo* Boud. proximus.

20. **Fomes** (*Ganoderma*) **mexicanus** Pat. Bull. Soc. Mycol. 1898, p. 54. — Pileo rigido, indurato, subsessili, applanato, tenui, semiorbiculari, antice sinuoso, postice cuneatim attenuato, irregulariter concentrice sulcato, grosse tuberculoso, radiatim rivuloso, fusco-brunneo, opaco, margine recto, tenui, sinuoso tuberculoso pallidiori, crustula fragili tecto, subtus plano-convexo, alutaceo v. pallide fusco, pilis minus plicato; poris minutis, rotundis, dissepimentis integris; tubulis brevibus, fusco-brunneis; sporis ovoideis, uno apice truncatis, levibus, 10 × 6-7; contextu rhabarbarino. 560

Hab. ad truncos emortuos Mexico (Maury). — Affinis *P. lucido*

POLYSTICTUS Fr. — Syll. VI, p. 208, IX, p. 181, XI, p. 90.

1. **Polystictus Möllери** Bres. Hedw. 1896, p. 280. — Pileo coriaceo- 561
papyrino, tenui, flabelliformi v. reniformi, sericeo, subzonato, ex albo stramineo, 1 1/2-4 cm. lato; stipite laterali, brevi, interdum obsoleto, pubescente, basi dilatato-adnato, albo, fuscescente, 2-7 mm. longo, 3-4 mm. crasso; tubulis brevissimis, concoloribus; poris minimis, punctiformibus, rotundatis, ex albo stramineis; hyphis subhymenialibus, 2 1/2-4 . latis; sporis non visis.

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

2. **Polystictus cingulatus** Fr.-Sacc. Syll. VI, p. 208. — Forma **pleuro-** 562
poda P. Henn. in Engl. Jahrb. XXIII, 1896, p. 281. — Pileo coriaceo, cinereo-cervino, zonato, 4-8 cm. lato, margine acuto, brunneo, pleuropode vel submesopode; stipite depresso, pallido, usque ad 15 mm. longo, 10 mm. crasso; poris minutis, rotundatis, pallidis; contextu floccoso, alutaceo.

Hab. ad truncos, Upolu ins. samoëns (Graeffe).

3. **Polystictus Holstii** P. Henn. Pilze Ostafr. p. 57. — Pileo coria- 563
ceo-papyraceo, infundibuliformi, rotundato, interdum obliquo, 1-5 cm. diam., dense strigoso-velutino, zonato, rufo-badio v. nigricante, zonis nunc griseo-velutinis, nunc sublevibus, nitentibusque, margine tenui, plerumque pallido; stipite centrali v. subexcentrico, 1-4 cm. longo, 1-3 mm. crasso, griseo-fusco, strigoso v. velutino, basi dilatato; hymenio cretaceo-albido; poris minutissimis, oculo nudo inconspicuis, rotundatis, contextu albido.

Hab. ad ramos emortuos in Africa trop. (Holst).

4. **Polystictus atro-albus** P. Henn. Fungi camerun. I, in Engl. 564
Jahrb. XXII, 1895, p. 92. — Pileo coriaceo-papyraceo, rigido, infundibuliformi, subrotundato, villosulo, dein nudo, subzonato, atrofusco, 2-3 cm. diam., margine subrepando, rigido; stipite subexcentrico, lignoso, duro, firmo, atro, griseo-tomentoso, 2 cm. longo, 1 1/2-2 mm. crasso, intus albido; poris minutissimis v. conspicuis, rotundatis.

Hab. ad ramos, Kamerun (Dusén).

5. **Polystictus Gregorii** A. L. Smith, Journ. of Bot. 1895, p. 341. 565
— Pileo coriaceo-papyraceo, infundibuliformi, rotundato, subobliquo, radiatim rugoso, 2-8 cm. diam., superne velutino, zonato, albido-griseo, zonis nunc griseis, nunc atris, plerumque sinuatis, margine tenui, atro, crispato-revoluto; hymenio griseo; poris mi-

nutis, rotundis vix decurrentibus; stipite brevi, atro-fusco, velutino, ad 1,5 cm. longo.

Hab. ad cortices, Africa orient. (Gregory).

6. **Polystictus obesus** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 125. 566
— Pileo stipitato, convexo, dein centro depresso, initio obconico margineque obtuso, demum expanso et margine acuto, flavo-cinnamomeo, asperulo, velutino, subcolliculoso, azonato, 4-6 cm. diam.; stipite centrali, spongioso, velutino, obscuriore cinnamomeo, 4-6 cm. alto, $^1/_2$-$1\,^1/_2$ cm. apice crasso, basi 2-3 cm.; poris irregularibus, brevibus, 1 mm. longis, initio rotundis margineque crasso, demum irregularibus, subsinuosis, $^1/_2$-1 mm. latis, margine acuto; sporis ellipticis, ferrugineis, 7-8 × 4-5.

Hab. ad terram, Newfield N. Jersey et Fairmount Park Philadelphiæ, Amer. bor. — *P. perenni* affinis.

7. **Poystictus semiplicatus** Ell. et Macbr. Bull. Lab. Nat. Hist. Jowa. 567
III, n. 4, 1896, p. 192. — Pileo flabelliformi, sæpe resupinato et margine reflexo, tenuissimo, membranaceo, 1-$1\,^1/_2$ cm. longo latoque, albo, postice obscure zonato, margine plicato-striato; poris albis, subangulosis, minutis, fere ut in *P. versicolori*, sed angustioribus.

Hab. ad truncos? in Nicaragua (Smith).

8. **Polystictus subglaber** Ell. et Macbr. Bull. Lab. Nat. Hist. Jowa. 568
III, n. 4, 1896, p. 192. — Pileo tenui, sicco, rigido, 3 cm. longo, 6 cm. lato, sordide luteo, zonato, radiato-striato, margine rhabarbarino; carne tenuissima, 1 mm. fibrosa, rhabarbarina; poris minutis, oculo nudo vix conspicuis, 1–2 mm. longis, colore carnis, ore albo-griseis.

Hab. ad truncos in Nicaragua.

9. **Polystictus versicolor** Fr.-Sacc. Syll. VI, p. 253. — Var. **albo-marginatus** Peck, 49 Rep. Stat. Bot. N. York. 1896, p. 31. — Pileo ut in typo, sed margine pilis albis sæpe zona glabra a parte obscuriore definite separatis late tecto; poris albis, sæpe laceratis 569

Hab. ad truncos, Newfoundland Amer. bor. (Waghorne).

10. **Polystictus zonatus** Fr.-Sacc. Syll. VI, p. 260. — Var. **imperfectus** Peck, 49 Rep. Stat. Bot. N. York, 1896, p. 31. — Poris inæqualibus, dissepimentis tenuibus, acutis v. subdentatis, albidis. 570

Hab. ad truncos Populi tremuloidis et P. grandidentatae, New York Amer. bor.

11. **Polystictus ekunduensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 91. — Pileo coriaceo-spongioso, subrigido, 571

duriusculo, reniformi, sessili, fusco-brunneo, subpallidiore zonato, vix ruguloso, villosulo-pruinato, margine obtuso, pallido, 5-8 cm. lato, 4-5 cm. longo; hymenio pallide griseo, contextu ferrugineo-fusco, spongioso, circiter 1 mm. crasso; tubulis 1-1 $^1/_2$ mm. longis; poris minimis punctiformibus, rotundatis, griseo-albis, subvillosis; sporis non visis.

Hab. ad truncos, Kamerun (Dusén). — *P. badio* affinis.

12. **Polystictus subflabellum** P. Henn. Fungi camerun. I, in Engl. 572
Jahrb. XXII, 1895, p. 91. — Pileo pleuropode, membranaceo-carnosulo, flabelliformi v. spathulato, longitrorsum striato subsulcatoque, azono, margine tenui, sublobato fimbriatoque, albo nitente, ca. 2 cm. lato, 1 $^1/_2$ cm. longo; stipite laterali, concolori, velutino, basi discoideo-subincrassato, ca. 5 cm. longo, 1 $^1/_2$ cm. crasso; poris mediis, oblongis, acutangulis v. sublaceratis, pallidis.

Hab. ad truncos putres, Kamerun (Dusén).

13. **Polystictus griseo-brunneus** P. Henn. n. sp. in litt. *P. aratus* 573
Berk. var. *griseo-brunneus* P. Henn. in Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 90. — Pileo coriaceo, rigido, tenui, sessili, semiorbiculari, cinereo-brunneo, subnitido, obscuriore zonato, verrucis innatis aculeiformibus asperato v. rugoso, margine tenui, rigido subundulato, 4-8 cm. lato, 3-5 cm. longo, contextu ferrugineo; poris minutis, rotundatis, æqualibus, brunneo-fuscis; sporis ovoideis, levibus, uniguttulatis, fusco-brunneis, 7-9 × 5-7 μ.

Hab. ad truncos, Kamerun (Dusén). — *P. luteo-olivaceo* affinis.

14. **Polystictus Fischeri** P. Henn. Jahrb. XXIII, p. 546. — Pileo 574
coriaceo, rigido, tenui, apode, conchiformi subreniformi, interdum inciso-lobato, cervino, concentrice obscuriore zonato sulcatoque, velutino 4-8 cm. lato, 3-4 cm. longo, margine tenui pallidiore, contextu ferrugineo, subspongioso; poris rotundatis, minutis, acutangulis, brunneo-ferrugineis, acie cinereis, integris; sporis haud conspicuis.

Hab. in Usambara, Afr. occ. (Fischer).

15. **Polystictus discifer** Pat. Ann. Jard. Buitenz. 1897, I, suppl. 575
p. 111. *(Leucoporus).* — Pileo 2-5 cm. longo, coriaceo-membranaceo, tenui, convexo, cuneiformi, antice lobulato, postice in stipitem attenuato, longitudinaliter striato, concentrice zonato, fusco-brunneo v. nigrescente, velutino dein glabrato, margine tenui, acuto, pallidiori; stipite 5-6 mm. longo, anguste acuteque marginato, compresso, basi orbiculariter dilatato; hymenio concavo, non decurrente, albido; poris minutissimis, angulosis; dissepimentis tenuibus, integris; cystidiis nullis; contextu tenui, pallido.

Hab. ad truncos. Java (Massart). — *P. metabili* Berk. affinis.

16. **Polystictus suboccidentalis** Sacc. et Syd. Sic nominandus est *Polystictus albidus* Mass., Sacc. Syll. XI, p. 92, quum exstet anterior ac bene notus *P. albidus* Trog, Sacc. Syll. VI, p. 239.

17. **Polystictus Léveillei** Cooke Enum. Polyp. 144. Sic nominandus *P. cinerescens* Lév., Syll. VI, p. 223, quum extet homonymus anterior Schweinitzii.

HENNINGSIA Möll. Protobasid. p. 44. (Etym. a cl. mycologo berolinensi P. Hennings). — Genus esset initio vere thelephoreum, demum polyporeum et sæpius parallele bicipitem, sed teste cl. Bresadola, cum *Polysticto* confluit, immo species ipsa a *P. rigescente* Cooke non differret.

1. **Henningsia geminella** Möll. l. c. 576

Hab. ad truncos pr. Blumenau Brasiliæ.

PORIA Fr. — Syll. VI, p. 292. IX, p. 189, XI, p. 93.

1. **Poria carneola** Bres. Hedw. 1896, p. 282. — Late effusa, carnosa; 577 subiculo membranaceo, alutaceo-pallido, margine tomentoso, albolilacino; tubulis brevibus, interruptis, sæpe obliquis; poris mediis subrotundis v. angulatis, variantibus, luride carneis, hinc inde lilacino-tinctis demumque carneo-pallentibus; sporis non visis; hyphis subhymenialibus $3\,^1/_2$–4 μ.

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

2. **Poria flavicans** Karst. Hedw. 1896, p. 44. — Effusa, determinata, 578 adnata, tenuis, ambitu byssina, alba; poris rotundis, æqualibus firmis, integris, sæpe obliquis et laceris, flavicantibus, minutis; cystidiis nullis.

Hab. ad lignum trunci secti Pini corticati pr. Mustiala in Fennia.

3. **Poria graphica** Bres. Hedw. 1896, p. 282. — Late effusa, tenuis- 579 sima, lilacino-carnea, margine rubello, subiculo nullo; tubulis vix $^1/_4$ mm. longis; poris elongatis, sinuosis, variis, dissepimentis tenuissimis præditis; sporis non visis; hyphis subhymenialibus 3 μ. latis.

Hab. ad ligna pr. St. Catharina Brasiliæ (Möller). — Species memorabilis, delicata.

4. **Poria pavonina** Bres. Hedw. 1896, p. 282. — Late effusa, coriacea, 580 adglutinata, vivide pavonina, expallens margine obsoleto, subiculo nullo; tubulis brevibus, 1 mm. longis; poris parvis, subangulatis; sporis non visis; hyphis subhymenialibus 2 μ.

Hab. ad ligna pr. Blumenau Brasiliæ (MÖLLER). — *Poriæ carneo-pallenti* Bork. proxima, sed colore, consistentia et poris magis regularibus distincta.

5. **Poria umbrinella** Bres. Hedw. 1896, p. 282. — Late effusa; subiculo fere nullo; tubulis 5–8 mm. longis, albo-fuscis, umbrino-fuscis; poris minimis, subrotundis, luteo-umbrinis, acie obtusa; sporis luteis, subglobosis, 3–4 × 3; hyphis subhymenialibus luteis, 2–3 μ. latis. 581

Hab. ad ligna pr. St. Catharina Brasiliæ (MÖLLER). — Habitu et colore cum formis resupinatis *Fomitis salicini* optime convenit, sed sporis diversa.

6. **Poria tephra** Pat. Bull. Soc. Myc. de Fr. 1895, p. 208. — Effusa, tenuis, adnata, orbicularis, cinereo-alutacea, 1-3 cm. diam., margine lato, 1-3 cm. aporo, ambitu byssino, albido dein ochraceo; poris minutis, angulosis brevibus, dissepimentis tenuibus, acutis, integris; sporis hyalinis, levibus, ovatis, 5 × 4; cystidiis nullis. 582

Hab. ad ramos emortuos in Æquatoria (v. LAGERHEIM).

7. **Poria Dusenii** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 88. — Late effusa, subcarnosa-coriacea, griseo-flavescens, ambitu byssino, pallido; poris elongatis, angulatis, labyrinthiformibus, amplis, tenuibus, acie laceratis, denticulatis, fimbriatis; sporis non visis. 583

Hab. ad cortices truncorum, Kamerun (DUSÉN).

8. **Poria ambigua** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati. 3 ser. III, fasc. 1-2 1897, p. 84. — Latissime effusa, margine superiore sæpe inflato subreflexo, alba, demum stramineo-isabellina, subiculo membranaceo, arcte adnato, albo; tubulis ut plurimum obliquis, hinc inde noduloso-congestis, usque ad 8 mm. longis; poris majusculis, angulatis, demum dentato-laceris; sporis hyalinis, obovatis, 5–8 × 3-3 ½ μ.; basidiis clavatis, 18–20 × 6-8 .; cystidiis fusoideis, apice muricellatis et demum levibus, 24-30 × 6–8 μ., hyphis subhymenialibus tenuiter tunicatis, septatis, 3-4 μ. latis. 584

Hab. ad truncos Fagi, Carpini et Piri communis in Hungaria (KMET) et in regione tridentina ad truncos Robiniæ Pseudacaciæ. — Nutat inter *Poriam* et *Irpices*.

9. **Poria confusa** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati. 3 ser. III, fasc. 1-2, 1897, p. 87. — Effusa, alba, ætate ochroleuco-crustulina, margine persistenter albo et tenuiter fimbriato, subiculo tenui tomentoso, ambitu separabili; tubulis brevibus, 1–1 ½ mm. longis; poris variis, rotundatis, angulatis, oblongis, parvis v. me- 585

diis, ore integro; sporis elongatis, uno latere compressis, hyalinis, 1-guttulatis, 5–6 × 3 μ.; basidiis clavatis, 15–20 × 4–6 μ.; hyphis subhymenialibus $2^1/_2$ μ. latis.

Hab. ad ramos corticatos *Alni glutinosæ* in Hungaria (Kmet). — Species media inter *Poriam vulgarem* et *P. mucidam*. Videtur quoque *Polyporo Rostafinskii* Karst. valde affinis, sed iste sec. Karst. Krit. Oefvers. p. 274 sporas habet globosas, 4–6 μ. diam. et marginem strigosum.

10. **Poria fulvescens** Bres. Atti R. Acc. Sc. Lett. et Arti degli 586
Agiati 3 ser. III, fasc. 1–2, 1897, p. 81. — Late effusa, fulvo-ferruginea, subiculo vix conspicuo arcte ligno innato; tubulis ut plurimum obliquis, subcarnosis, in sicco collapsis, circiter 2 mm. longis; poris majusculis, angulatis, mox in dentes foliaceos v. subulatos porrectis; margine vix visibili, pruinato, pallidiore; sporis hyalinis, obovato-elongatis, 6–9 × $3^1/_2$–$4^1/_2$ μ.; basidiis clavatis, 30–35 × 6–8 μ.; hyphis subhymenialibus tenuiter tunicatis, $2^1/_2$–4 μ. latis.

Hab. in trunco Populi tremulæ in Hungaria (Kmet). — Videtur *Polyporo chrysolomati* Fr. proximus; forma vero pororum ad *Irpices* transit, quibus tamen vix affinis.

11. **Poria nigrescens** Bres. Att. R. Acc. Sc. Lett. et Arti degli Agiati 587
3 ser. III, fasc. 1–2, 1897, p. 83. — Late effusa, subiculo membranaceo, stramineo, facile separabili, 1–$1^1/_2$ mm. crasso; tubulis concoloribus, usque ad 2 mm. longis; poris parvis, subrotundis, in vegeto albis, dein pallide carneo-violaceis, demum nigrescentibus; hyphis subhymenialibus tenuiter tunicatis, 4–6 μ. latis; sporis non visis.

Hab. ad truncos emortuos Abietis pectinatæ in Hungaria (Kmet), in regione tridentina (Bresadola) et in Bavaria (Allescher). — Perennans, stratosa, tubulis singulorum annorum strato intermedio floccoso distinctis. Forte hucusque cum *Poria obducente* Fr. confusa, a qua optime distincta.

12. **Poria subviolacea** Ell. et Ev. Americ. Natur. 1897, p. 339. — 588
Subiculo arachnoideo-tomentoso, albo, laxo, a matrice non separabili; hymenio primo violaceo et poris hemisphærico-depressis dein sordide albido vel luteolo-albido et poris elongatis, sed brevibus, plus minusve inæqualibus, margine dentato; sporis allantoideis, hyalinis, $3^1/_2$ × 1.

Hab. in ramis dejectis Quercuum pr. Newfield Amer. bor.

13. **Poria albo-grisea**. Britz. Hymen. Hymen. Kunde, III, 1897. 589

p. 10, fig. 217. — Albo-grisea, tenuissima, ceracea; poris minutissimis, globoso-angulosis, vermicularibus, dissepimentis laceratis; sporis 6-9 × 2-3 $^1/_2$, curvulis luteolis, in cumulo albis.

Hab. ad ramos quercinos in Bavaria.

14. **Poria carneo-lilacea** Britz. Hymen. Kunde, III, 1897, p. 9, 590
fig. 211. — Carneo-lilacina; poris minutis, irregulariter subgloboso-angulosis, mollibus, interdum carnosis; sporis 3 × 1 $^3/_4$-2 $^1/_2$, albis.

Hab. ad truncos betulinos in Bavaria.

15. **Poria fulvo-badia** Pat. Journ. de Bot. 1897, p. 340. — Tota 591
resupinata, a matrice inseparabilis, effusa, 12 cm. longa, fulvo-badia, tenuis, margine sterili applicato, pallide ochraceo, tenui, membranaceo, 1 cm. circiter lato; tubulis brevibus, 150-400 μ. longis; poris tantum sub lente conspicuis, angulosis v. rotundatis, 70-90 μ. diam., dissepimentis tenuibus integris; cystidiis hyalinis cylindricis, apice obtusis, sæpe incrustatis, 20-40 × 10-18.

Hab. ad lignum vetustum in Tonkin.

16. **Poria hanoiensis** Pat. Journ. de Bot. 1897, p. 341. — Tota re- 592
supinata, late effusa, plana, glabra, margine indistincto applicato, initio albo-lilacina, demum brunneola; tubulis brunneis, obliquis, longis; poris minutissimis, oculo nudo vix perspicuis, rotundatis, dissepimentis crassis integris; cystidiis nullis.

Hab. ad truncos vetustos in Tonkin.

17. **Poria subrufa** E. et D. Proc. of the Canad. Inst. 1897, p. 89. 593
— Resupinata, effusa, plerumque plagulas minutas 2-4 cm. lat. inseparabiles, succoso-molles, cremeas, dein (in sicco) rubentes efformans, margine tenui membranaceo angusto, sæpius nullo; poris rotundo-subangulosis, $^1/_4$-$^1/_2$ cm. long., $^1/_4$-$^1/_2$ mm. lat., sepimentis tenuibus, acie acuta, non lacerata; sporis ellipsoideo-oblongis 4 × 3.

Hab. ad ramos putres fagineos, Granton, Canada. — Affinis *Poriæ cruentatæ.*

18. **Poria xanthospora** Underw. Proc. Indiana Acad. 1893, p. 61. — 594
Resupinata areas amplas ligni obtegens; mycelio tenui, sordide albo, subiculum fere inconspicuum efformante; poris initio albidis, fere superficialibus, usque ad subiculi marginem nascentibus, licet non perfecte evolventibus, dein ob sporas copiosas flavescentibus demum flavescenti-brunneis vel obscure ferrugineis, leniter angulatis, 250 μ. diam. orificio cristato, maturis 1 cm. circiter longis, raro usque 2-2,5 cm. longis; sporis numerosis, ovatis, 6 × 4,5 μ., aureo-flavis nitentibus, levibus, nucleatis.

Hab. sub cortice relaxato et in ligno Populi heterophyllæ, Goose Pond, Indiana Amer. bor.

19. **Poria calcicolor** Sacc. et Syd. Ita dicenda *P. calcea* B. et Br., Syll. VI. p. 295, quum adsit *P. calcea* Schwein. anterior.

TRAMETES Fr. — Syll. VI, p. 334, IX, p. 194, XI, p. 96. — Confer generis dispositionem et emendationes apud Cooke Grev. XIX, p. 98.

1. **Trametes floccosa** Bres. Ann. R. Ist. Bot. Roma, VI, 1896, p. 179. *Fomes introstuppeus* P. Henn. Fg. Afr. I, p. 343 nec Berk. — Pileo dimidiato-sessili, e pulvinato explanato-subconchato suberoso-molli, substuppeo, glabro, postice subscruposo, luride alutaceo, hinc inde livido tincto, margine zonis violaceo-lividis ornato, 8–12 cm. lato, 5–9 cm. antice producto, intus substantia spongioso-molli, floccosa, ligni colore, zonis fuscidulis concentricis signata, $1^1/_2$–$2^1/_2$ cm. crassa prædito; tubulis 1–2 cm. longis, alutaceis; poris $^1/_2$ mm. circiter latis, rotundato-subhexagonis, concoloribus; sporis obovato-elongatis, hyalinis, 12–14 × 5–7. 595

Hab. ad truncos Africæ centralis (Schweinfurth). — A *Fomite introstuppeo* Berk. præcipue poris majoribus, subhexagonis, mox distinguenda. *Trameti cubensi* Mont. proxime affinis.

2. **Trametes Chusqueæ** Pat. Bull. Boiss. 1895, p. 84, tab. II, f. 7. — Pileo sessili, orbiculari, 2–3 mm. diam., puncto dorsali adfixo, albo, villoso, margine acuto, integro, recto vel leviter inflexo; hymenio pallide rufo vel albido, concavo, plano vel convexo; poris minutissimis, oculo nudo vix perspicuis, angulosis, dissepimentis tenuibus, mollibus, subintegris; basidiis clavatis, 20 μ. longis 4-sterigmaticis; cystidiis nullis; sporis hyalinis, ovoideis, levibus, 5 × 3 μ.; contextu firmo, albo, non gelatinoso. 596

Hab. in truncis emortuis Chusqueae in Æquatoria (v. Lagerheim). — *T. Sprucei* Berk. affinis.

3. **Trametes andina** Pat. Bull. Soc. Myc. de Fr. 1895, p. 208. — Pileo sessili, imbricato-lobato, adpresse tomentoso, albido, postice subalutaceo, den[illegible]inuteque concentrice sulcato, margine repando, contextu albido, tenui, coriaceo, hymenio pallide alutaceo; poris mediis, angulosis, dissepimentis tenuibus, integris; tubulis brevibus. 597

Hab. ad truncos emortuos in Æquatoria (v. Lagerheim). — Pileus 8–12 cm. latus, 3–4 mm. altus, coriaceus. *T. occidentali* valde affinis.

4. **Trametes Ellisiana** P. Henn. Fungi camerun. I, in Engl. Jahrb. 598

XXII, 1895, p. 92. — Pileo coriaceo, sublignoso, rigido, sessili, semiorbiculari, decurrente, leonino, dense fibroso-strigoso, azono, fibris ramosis, subrigidis, stuposis, erectis vel depressis, margine reflexo, contextu ochraceo; hymenio irregulariter decurrente, alutaceo v. ochraceo, tomentosulo; poris mox amplis, rotundatis, oblongis, plus minus acutangulis, mox in dentes compresso-acutangulos laceratis.

Hab. ad truncos Sierra Leone, Africa (Cole).

5. **Trametes grisea** Pat. Journ. de Bot. 1897, p. 341. — Solitaria 599
v. imbricata; pileo semiorbiculari sessili, dimidiato, rigido, planoconvexo, margine sinuato, antice in longitudine plicato rugulosoque, postice tuberculoso, zonis tribus concentricis vix innatis prædito, pruinoso, griseo, 5–8 cm. lato, 1–2 cm. crasso; margine albo obtuso, rotundato, erecto, 6–8 mm. crasso; tubulis brevibus; poris rotundatis v. ovalibus, mediocribus, $^1/_4$–$^1/_3$ mm. diam.

Hab. in truncis putridis in Tonkin.

6. **Trametes trabea** Otth, Bern. Mittheil. 1870, p. 92. — Pileo sub- 600
eroso-coriaceo e basi parum dilatata reflexo, sulcato-zonato, villosulo, fulvido, umbrino v. rufescenti-brunneo, intus fulvo-ferrugineo, margine vulgo subtus tumidulo et sterili; poris concoloribus, subpruinosis, rotundis, oblongis v. linearibus, in series a basi ad marginem excurrentes digestis v. hinc inde inordinatis.

Hab. ad truncos et lignea pinea, quercina, faginea, populina in Helvetia. Pileus pororum strato nunc crassior, nunc angustior, vegetus fragrans.

7. **Trametes Fagi** Otth, Bern. Mittheil. 1870, p. 93. — Pileo fulvo, 601
triquetro, superficie in fibras sericeas soluto, margine subacuto; poris minutis, inæqualibus, vix ultra 2 mm. longis, pileo concoloribus licet paullo pallidioribus, subdecurrentibus; contextu duriusculo, parum elastico, fulvo, zonato.

Hab. in ligno fagineo fluctuato in Helvetia. — Pileus 2 cm. lat. 15 mm. cr.

8. **Trametes nivea** Otth, Bern. Mittheil. 1870, p. 94. — Pileo albo, 602
immutabili, crasso, suberoso-elastico, submolli et tenaci, triquetro, scruposo-inæquabili, gibboso-adnato et leniter attenuato-decurrente, margine acutiusculo, contextu albo, obsolete zonato; poris longis, mediocribus, subirregularibus.

Hab. ad ligna pinea putrescentia in Helvetia. — Pileus transverse 9-10 cm. lat. pori 10-12 mm. long.

HEXAGONIA Fr. — Syll. VI. p. 356, IX. p. 198, XI, p. 97. — Cfr. Cooke, Grev. XIX, p. 103.

1. **Hexagonia atro-sanguinea** P. Henn. Engl. Jahrb. XXIII, p. 545. 603
— Pileo subresupinato, late effuso, margine libero, coriaceo, rigido, atro-rufo v. atro-sanguineo, zonato, striato, levi, glabro; alveolis amplis, hexagonis, subsanguineis, cinereo-pruinosis, 1–1 $^1/_2$ cm. diam., intus setulis brunneis vestitis, acie integris.

Hab. in ramis putridis in Camerunia (Staudt).

2. **Hexagonia vittata** Ell. et Macbr. Bull. Labor. Nat. Hist. Univ. 604
Jowa, IV, 1896, p. 68. — Pileo membranaceo-coriaceo, expanso, 2–3 cm. lato, 6–10 cm. longo, subresupinato, margine libero, plus minus reflexo, vix sulcato-plicato, tenui, undulato, acuto, concentrice vittato, subglabro, atro, margine pallidiore et substerili; alveolis pallide brunneis v. fuscis, nitidis, rigidis, acutis, margine integro, 500–700 μ. diam., elongatis.

Hab. in ramis et truncis pr. Castillo Nicaraguæ (Smith).

MYRIADOPORUS Peck — Syll. VI p. 384, IX p. 201.

1. **Myriadoporus subsulphureus** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 605
p. 277. — Effusus immarginatus, extus ligneus v. griseo-albus, intus dilute sulphureus, contextu grumoso suberoso, subinde horizontaliter stratosus, 4–5 mm. crassus, continuus, vulgo 5–6 cm. longus; poris imperfecte evolutis, non continuis nec cylindraceis, sed cellas parvas seu cavitates tubulorum instar efformantibus, irregulariter sparsis, superficiem versus magis numerosis.

Hab. in ligno putrido, Colorado Amer. bor.

CERIOMYCES Corda — Syll. VI, p. 385, IX p. 201.

1. **Ceriomyces cubensis** Pat. Bull. de la Soc. Mycol. de France, 1896, 606
p. 133, tab. IX, fig. 4 (*Ptychogaster*). — Fulvus, durus, subglobulosus, 3–5 cm. altus, circiter 3 cm. latus, fibrosus, concentrice zonatus; sporophoris cohærentibus, cylindricis, elongatis, fulvis, transverse septatis; sporis globulosis v. ovoideis, circiter 8 μ. diam. utrinque truncatis, sed interdum attenuatis et fusiformibus, levibus, varie coloratis, pallide fulvis, fulvis v. intense rubris; cystidiis (?) fulvis v. rubris, non septatis, 200–500 × 12–20.

Hab. ad truncorum basim (?), in Cuba.

2. **Ceriomyces Fici** Pat. Enum. Champ. Tunisie, 1892, pag. 4, tab. II, 607
fig. 2 (*Ptychogaster*). — Sessilis, tuberculiformis, hemisphæricus, 5–8 cm. diam., fragilissimus, intus fulvus; contextu radianti, zo-

nato, ex hyphis erectis formato; sporophoris sterilibus v. fertilibus; crusta nulla; sporis binis v. trinis concatenatis, ex hyalino luteis, demum rubris, globosis, ovalibus v. elongatis, levibus, 10–22 × 8-12 vel 9–10 μ. diam.

Hab. ad basim truncorum Fici Caricæ in Tunisia.

CYCLOMYCES Kze. et Fr. — Syll. VI, p. 389.

1. **Cyclomyces javanicus** Pat. Ann. Jard. Buitenz. 1897, I. suppl. p. 113, *(Xanthochrous)*. — Pileo fusco-ferrugineo, molli, orbiculari, 6 cm. diam., centro scruposo-tomentoso depresso, margine erecto, sinuoso, obtuso, cristato, hispido; stipite radicato, inverse conico, centrali, 8 cm. longo, apice 25 mm. crasso, regulariter attenuato, rugoso-sulcato, rufo-brunneo, velutino, farcto, contextu indurato; lamellis fusco-olivaceis, concentricis, crassiusculis, integris, obtusis, distantibus (1 mm.), centralibus subporiformibus; cystidiis nullis; basidiis longissimis, 50–70 μ.; sporis ovoideis, levibus, 13 × 5, pallide fuscis. 608

Hab. ad terram (?) in silvis Javæ (Massart).

FAVOLUS Fr. — Syll. VI, p. 390, IX, p. 202, XI, p. 101.

1. **Favolus Preussii** P. Henn. Engl. Jahrb. XXIII, p. 545. — Pileo carnoso, submembranaceo, flabelliformi, sinuoso-lobato, lateraliter stipitato, levi, subglabro, postice obsolete striato, margine inciso denticulato, crispato, brunneo, usque ad 13 cm. lato, 7 cm. longo; stipite postice cuneato, subcylindraceo, basi discoideo, farcto, villoso, concolori, 2 cm. longo, 5 mm. crasso; alveolis amplis, oblongis, acutangulis, acie laceratis, denticulatis, brunneolis; sporis non visis. 609

Hab. in truncis putridis in Camerunia (Preuss).

2. **Favolus congolensis** De Seyn. Rech. Champ. Congo fr. 1897, I, p. 28, tab. I, fg. 27–31. — Stipite laterali, tenui, luteo-flavescente, levi, plano, 5-6 mm. longo; pileo orbiculari, convexulo, bulloso papuloso, carnosulo-membranaceo, margine sinuoso integro, luteo flavescente, 4-6 mm. lato, subtus poris hexagonis, in quibusdam elongatis, ornato, dissepimentis acie integra; hymenio pilis claviformibus apice verruculosis exsertis prædito; cystidiis mammiformibus paucis; sporis non visis. 610

Hab. ad cortices in regione Kongolana gallica.

3. **Favolus striatulus** Ell. et Ev. Americ. Natur. 1897, p. 339. — Pileo convexo-plano, sicco firmo et rigido, umbilicato, stipitato. 611

radiato-striato lineis obscurioribus, sed non sulcato, 4–5 cm. lato, sicco pallide luteolo; margine pallidiore, sublobato, anguste incurvato; stipite centrali, in pileum dilatato, solido, pallide luteolo, subtilissime velutino, 1 cm. longo, 3–5 mm. crasso; poris inæqualibus, decurrentibus, subquadrangularibus v. ellipticis, 1–2 mm. altis, margine acuto minuteque eroso-dentato; sporis allantoideis, hyalinis, 5–7 × 1.

Hab. in ramis putridis in silvis Delaware Amer. bor. (Commons). — *F. Curtisii* Berk. affinis.

GLŒOPORUS Mont. — Syll. VI, p. 403, IX, p. 204, XI, p. 103.

1. **Glœoporus conchoides** Mont.-Sacc. Syll. VI, p. 403. — Var. **stereiformis** P. Henn. Hedw. 1897, p. 204. — Pileo coriaceo, dimidiato, velutino, subzonato, interdum tuberculato sulcatoque, alutaceo, 1–4 cm. lato; poris gelatinosis, subrotundatis, 100–120 μ. diam., pallido-carneis; sporis non visis. 612

Hab. ad truncos emortuos pr. Balao Æquatoriæ (Eggers).

LASCHIA Fr. — Syll. VI, p. 404, IX, p. 204, XI, p. 103.

1. **Laschia Moelleri** Bres. Hedw. 1896, p. 285. — Sessilis et stipitata; pileo orbiculari v. reniformi, glabro, pellucide alveolato, albo, 4–8 mm. lato; stipite laterali, concolore, usque ad 4 mm. longo, 1 mm. circiter crasso, pellucido, glabro; alveolis obovatis, hexagonis, majusculis, 1–1 $^1/_2$ mm. albis; sporis subglobosis, hyalinis, 6–9 × 6–8; basidiis clavatis 20–25 × 5–6; cellulis pilei granuloso-asperulis, 16–18 × 14, ellipsoideis. 613

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

2. **Laschia flava** Bres. Hedw. 1896, p. 285. — Pileo subreniformi, pellucide alveolato, sub lente pruinato, vivide flavo, 2–3 mm. lato; stipite laterali, filiformi, 2–3 mm. longo, concolore, pruinato; alveolis parvis, rotundato-angulatis, dissepimentis crassiusculis, concoloribus; sporis ellipsoideis, 7–8 × 4–4 $^1/_2$; basidiis clavatis, 20–24 × 6; cellulis pilei clavato-stipitatis, apice echinulatis, 15–20 × 12–14. 614

Hab. ad ligna pr. Blumenau Brasiliæ (Möller).

3. **Laschia rubra** Bres. Hedw. 1896, p. 285. — Pileo subreniformi v. suborbiculari, pellucide alveolato, glabro, læte rubro, 1–2 mm. lato; stipite laterali v. excentrico, concolore, glabro, pellucido, 1 $^1/_2$–3 mm. longo, $^1/_2$–1 mm. crasso; alveolis hexagonis, parvis, concoloribus, dissepimentis crassiusculis; sporis subglobosis, 8–10 × 7–8; 615

basidiis clavatis, 20–25 × 5–6; cellulis pilei ellipticis, glabris, 12–14 × 8–9, polygonalibus

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Möller). — A *Laschia Auriscalpio* Mont., cui simillima, præcipue alveolis quadruplo minoribus distincta.

4. **Laschia Volkensii** Bres. in P. Henn. Pilze Ostafr. p. 58. — Tota citrina; pileo membranaceo, orbiculari, e latere stipitis sinuato-bilobo, pellucide reticulato, glabro, 4–10 mm. lato; alveolis hexagonis, $^2/_3$ mm. latis, dissepimentis crassiusculis, obtusis; stipite tereti, excentrico, fere laterali, e pruinato glabrescente, farcto, 4–7 mm. longo, $^2/_3$ mm. crasso; basidiis clavatis, 40–45 × 8–10; sporis luteolis, ellipticis, 10–11 × 6–7; cellulis pilei elongato-subclavatis, echinulatis, 30–45 × 12–15. 616

Hab. ad ligna putrida in Africa trop. (Volkens) — *L. Auriscalpio* Mont. affinis, sed bene diversa.

5. **Laschia cantharelloides** Pat. Ann. Jard. Buitenzorg. 1897, I. suppl. p. 109, tab. XXIV, fig. 5–7. — Pileo gelatinoso, sessili, vertice adfixo, pendulo, inverse cupuliformi, lateraliter inciso, rufo-brunneo, pruinoso, margine sinuato, irregulariter bulboso v. radiatim sulcato, 1-3 cm. diam.; hymenio infero; lamellis paucis, 3–6, radiantibus, ramosis, crassis, obtusis, interstitiis lamellato-reticulatis; basidiis claviformibus, 4-sporis; cystidiis nullis; sporis ovoideis, hyalinis, 8–10 × 5-6; contextu gelatinoso ex hyphis crassis subhyalinis composito. 617

Hab. ad truncos, Java.

6. **Laschia** *(Favolaschia)* **saccharina** Pat. Bull. Boiss. 1895, p. 54. — Pileo albido, carnoso-coriaceo, horizontali, conformi, postice marginato, pruinoso-pulverulento, 1-2 mm. lato, margine involuto; hymenio glauco, concavo; poris minutis (200 μ. latis), distantibus angulosis, dissepimentis crassis, pruinosis integris; stipite puncto dorsali adfixo, curvato, gracili, tereti 1 mm. longo, vix $^1/_2$ mm. crasso, albido-pruinoso; contextu albo vix gelatinoso; pellicula pilei e cellulis subhyalinis, ovoideis, numerosis, 25-30 × 20 μ. composita. 618

Hab. in truncis putridis Chusqueæ in Aequatoria. — *F. Auriscalpio* affinis.

7. **Laschia** *(Favolaschia)* **Frieseana** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 94. — Pileo tremelloso-membranaceo, resupinato, subreniformi, vertice affixo, melleo, tessellato-tuberculato, integro, 2–7 mm. diam.; alveolis rotundatis, hexagonis, subdenti- 619

culatis, concoloribus, usque ad 1 mm. diam.; sporis subglobosis, hyalinis, 5-7 μ.

Hab. ad petiolos putres Palmarum? Kamerun. (Dusén).

8. **Laschia** *(Favolaschia)* **lateritia** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 94. — Pileo membranaceo, verticaliter affixo, reniformi, tessellato-verrucoso, pruinoso, 3-11 mm. lato, margine repando-crenato, lateritio; stipite excentrico, sublaterali, farcto, concolori, farinaceo-subpruinoso, 5-9 mm. alto, $^1/_2$-1 mm. crasso, basi incrassato; poris rotundato-oblongis, acutangulis, 0,5-1,5 mm. diam., crassiusculis; sporis ellipticis, intus granulatis, flavis, 7-8 × 4-5$^1/_2$ μ.; basidiis clavatis, 18-30 × 10-14. 620

Hab. ad ramos putres, Kamerun (Zenker et Staudt).

9. **Laschia** *(Favolaschia)* **bibundensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 94. — Minima, pleuropoda, albida; pileo horizontali, convexulo, semiorbiculari, tessellato, albo-villosulo, 1-2 mm. lato, 1-1$^1/_2$ mm. alto, margine subrepando; stipite vix 0,3 mm. alto, albo-pruinoso v. villosulo; hymenio plano, pallido; poris rotundato-angulatis, parvis, crassis, pruinosis; sporis ovoideo-ellipsoideis, hyalinis, granulatis, 9-10 × 7-8 μ; basidiis subclavatis, 20-25 × 9-11 μ., granulatis. 621

Hab. ad petiolos putres Elaeis guineensis, Kamerun (Dusén).

10. **Laschia** *(Favolaschia)* **Staudtii** P. Henn. Engl. Jahrb. XXIII, p. 544. — Pileo gelatinoso, subramoso, mesopode, convexo-plano, crasso, suborbiculari, levi glabroque, niveo, 8-16 mm. diam., hymenio plano v. subconvexo; tubulis 2-4 mm. longis; poris rotundatis v. oblongis, subacutangulis, crassiusculis, acie integris; stipite gracili, fistuloso, æquali, levi, glabro, subpruinoso, niveo, 2-4 cm. longo, 2 mm. crasso; sporis subglobosis, levibus, hyalinis, guttulatis, 4-4$^1/_2$ × 3$^1/_2$-4. 622

Hab. in ligno putrido in Camerunia (Staudt).

11. **Laschia** *(Favolaschia)* **Baumanniana** P. Henn. Engl. Jahrb. XXIII, p. 544. — Pileo tenui translucente, gelatinoso, orbiculariter campanulato-explanato, centro umbonato v. umbilicato-subpapilloso, tessellato-tuberculato, flavo, 5-15 mm. diam.; stipite centrali, gracili v. tenui, æquali, fistuloso, levi glabroque, obsolete striato, interdum torto, basi vix incrassato, pallido, 1-3 cm. longo, 1-1$^1/_2$ mm. crasso; alveolis oblongis v. rotundato-hexagonis, brevissimis, planis, angustis, acie integris; sporis ellipsoideis, hyalinis, basi apiculatis, 6-7 × 4. 623

Hab. in ligno in Togo Afr. occ. (Baumann).

12. **Laschia** *(Favolaschia)* **rosea** P. Henn. Engl. Jahrb. XXIII, p. 545. 624
— Pileo membranaceo, gelatinoso, subreniformi, subsessili, resupinato, affixo vel lateraliter breve stipitato, 5–11 mm. diam., tessellato, roseo; stipite vix $1^1/_2$ mm. longo, 1 mm. lato, concolori, recurvato; alveolis hexagonis, $1^1/_2$ mm. amplis, acie crassis, integris, subroseo-pallidis; sporis ovoideis v. subellipsoideis, flavis, 5–6 × $3^1/_2$–$4^1/_2$.

Hab. in ramis emortuis in Togo Afr. occ. (Baumann).

13. **Laschia** *(Favolaschia)* **citrinella** P. Henn. Engl. Jahrb. XXIII, 625
p. 545. — Pileo membranaceo, gelatinoso, subreniformi, flavo, verrucoso-rugoso, margine sinuoso, 2-6 mm. lato; hymenio crispato, sublamelloso-venato; alveolis irregularibus, plus minus amplis, acutangulis v. laceratis, crassis; stipite laterali affixo, tereti, farcto, pruinoso, 3–6 mm. longo, 1 mm. crasso, flavo; sporis ellipsoideis, levibus, 6–7 × 4–5; basidiis clavatis.

Hab. in ligno putrido in Camerunia (Staudt).

14. **Laschia** *(Favolaschia)* **brasiliensis** P. Henn. Hedw. 1897, p. 203. — 626
Pileo reniformi, tenui-membranaceo, pellucido, flavo, reticulato, glabro, 4–8 mm. diametro; stipite tereti vel subcompresso, luteolo, minute tomentosulo, 5–12 mm. longo, 0,5–0,9 mm. lato; alveolis hexagonis, oblongis, dissepimentis crassiusculis.

Hab. ad ramos in Brasilia (Sello).

15. **Laschia** *(Favolaschia)* **Selloana** P. Henn. Hedw. 1897, p. 203. — 627
Pileo membranaceo, gelatinoso-elastico, subreniformi vel spathulato lobato, tessellato-reticulato, levi, subaurantiaco, 5-17 mm. diametro; stipite laterali compresso, subcurvato, aurantiaco, 2–3 cm. longo, 1–2 mm. crasso, tomentosulo; alveolis acutangulis 0,5–2 mm. latis, crassiusculis.

Hab. ad ramos in Brasilia (Sello).

16. **Laschia** *(Favolaschia)* **pulverulenta** P. Henn. Hedw. 1897, p. 203. — 628
Pileo pusillo, membranaceo, semiorbiculari, convexo, pallido, farinaceo-pulverulento, 0,5–1 mm. diametro; stipite laterali, concolori, farinaceo, ca. 0,5 mm. longo; alveolis paucis, 5–12, hexagonis, pallidis, crassiusculis.

Hab. ad caules herbarum in Brasilia (Ule). — Species minutissima *L. flavæ* Bres. proxime affinis.

17. **?Laschia** *(Favolaschia)* **magnifica** P. Henn. Hedw. 1897, p. 203. — 629
Pileo membranaceo, tenui, subgelatinoso, orbiculariter convexo subcampanulato, glabro, rufo-brunneo vel purpurascente 2–$3^1/_2$ cm. diametro; stipite centrali, farcto, tereti vel compresso, tenui, levi gla-

broque subpruinoso, rufobrunneo, interdum curvato 4–7 cm. longo, 1–2 mm. crasso; alveolis radiantibus penta-vel hexagonis, amplis ad marginem veniformibus; sporis subglobosis, hyalinis 3 ½-4 μ.

Hab. in foliis deciduis, ligno in Brasilia (Sello) et Venezuela (Gollmer). — Species magnifica forte potius ad *Favolum* ducenda.

18. **Laschia** *(Porolaschia)* **micropora** Pat. Bull. Soc. mycol. 1898, p. 55. — Pileo sessili, suborbiculari, plano, 8 cm. lato, tenui, glabro, brunneo-fusco, pellucido, gelatinoso, margine acuto, inflexo, integro; hymenio infero, applanato; poris minutissimis, angulosis, regularibus; dissepimentis tenuibus, integris, gelatinosis; basidiis simplicibus claviformibus, 4-sterigmaticis; cystidiis nullis; sporis albis, ovoideis, grosse 1-guttatis, 7 × 5. 630

Hab. ad truncos, Mexico (P. Maury). — Affinis quoque *Glæoporo.*

MERULIUS Hall. — Syll. VI, p. 411, IX, p. 205, XI, p. 104. — Cfr. Grev. XIX, p, 100.

1. **Merulius subambiguus** P. Henn. Hedw. 1897, p. 202. — Resupinato-effusus, submembranaceus, ochraceo-rufus, ambitu late byssino, albo; hymenio ceraceo, primo reticulato, dein poroso; poris subrotundis, acutangulis; sporis subglobosis, hyalino-fuscidulis, levibus, 5–6 μ. 631

Hab. ad cortices truncorum pr. Blumenau Brasiliæ (Möller).

2. **Merulius rufus** Pers.-Sacc. Syll. VI, p. 417. — Var. **pinicola** Karst. Hedw. 1896, p. 45. — Mycelio pelliculam tenuissimam, crustaceo-adnatam, albam sistente; hymenio carnoso-molli, æqualiter poroso, carneo-flavo. 632

Hab. in ligno Pini in regione Mustialensi Fenniæ.

3. **Merulius lacrymans** (Jacq. Fr. — Sacc. Syll. VI, p. 419. — Var. **terrestris** Ferry, Revue mycol. 1895, p. 72; var *terrestris.* Peck, 49 Rep. Stat. Bot. N. York, 1896, p. 31. — Pileis dimidiatis, horizontalibus, superpositis, stipite communi suffultis; subiculo albido v. griseolo; hymenio sporisque dilute ferrugineis; cetera ut in typo. 633

Hab. ad terram in Vogesis, in cellario, Michigan Amer. bor.

4. **Merulius Moelleri** Bres. et P. Henn. Hedw. 1896, p. 285. — Pileo membranaceo-molli, sessili, valde postice resupinato-producto, albo, tomentoso-floccoso, 2-4 cm. lato, sæpe aliis connato, concentrice sulcato, margine repando-lobato; hymenio plicis reticulatis, subporosis prædito, aurantio-carneo vel vinoso, fuscescente; sporis 634

hyalinis, globosis, nucleo fulvo, 3 μ. diam.; basidiis clavatis, 25 × 4-5; hyphis subhymenialibus 4-4½ μ. latis.

Hab. ad ligna pr. Blumenau Brasiliæ (Möller). — Habitus prorsus *Merulii tremellosi* Schrad., at substantia molli, membranacea, forma sporarum etc. satis superque distinctus.

SOLENIA Hoffm. — Syll. VI, p. 424, IX, p. 207, XI, p. 106.

1. **Solenia porioides** (Alb. et Schw.) Sacc.-Syll. VI, p. 425. — Var. **quercina** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 62. — Tubulis sessilibus, globosis, dein cupuliformibus, villosis, cinereis, radiatim striatis, glabrescentibus, minutis, sparsis aut densissime gregariis, mycelio late effuso (10-20 cm.) mucedineo, cinereo, insidentibus; hymenio levi, brunneo-fusco; basidiis clavatis, 20 × 6 μ.; cystidiis nullis; sporis hyalinis, globosis, 5-6 μ. latis, levibus, 1-guttulatis. 635

Hab. in ligno denudato, putrido Quercus Mirbeckii in Tunisia.

Fam. 3. Hydnaceæ Fr.

HYDNUM L. — Syll. VI, p. 430, IX, p. 208, XI, p. 106. — Cfr. Grev. XX, p. 2.

1. **Hydnum serotinum** C. Mart. Bull. Soc. bot. Genève, VII, 1892-1894 p. 194. — Pileo glabro levique, convexo-plano, subumbilicato, carnoso-membranaceo, tenui, rubro-ferrugineo, margine sinuato, 1 ¾ cm. lato; stipite claviformi, compresso, glabro levique, apice curvato, concolori, 2 ¾ cm. longo, basi 7 mm. crasso, apice 2 mm.; aculeis pallidioribus, dein concoloribus, brevibus, vix 1 mm. longis, integris, acutis. 636

Hab. in muscosis montanis sub nive in Helvetia.

2. **Hydnum spongiosipes** Peck, 50 Rep. p. 111. — Pileo convexo, molli, spongioso-tomentoso, contextu tamen durinsculo, ferrugineo-brunneo, strato inf. firmiore et fibroso, sed concolore, aculeis tenuibus, 2-4 mm. long., ferrugineo-brunneis, dein obscurioribus; stipite intus duro coriaceo, extus spongioso tomentoso, pileo concolore, substantia centrali sæpe zonata; sporis subglobosis, nodulosis, purpureo-brunneis, 4-6 μ. diam. 637

Hab. in silvis, Rensselaer et Saratoga Amer. bor. — Pileus 4-10 cm. lat.; stipes 4-7 cm. long., 8-16 mm. cr.

3. **Hydnum albo-nigrum** Peck, 50 Rep. p. 110. — Pileo convexo-plano, infra late obconico-stipitato, carnoso-lento, dense tomentoso, 638

fulvo-brunneo v. fumoso-brunneo, tomento albido omnino tecto, carne superne brunnea, inferne duriore et nigra; aculeis brevibus albis, dein albidis v. griseis; stipite brevi inæqualiter compresso, udo nigricante, sicco fulvescente, dense crasseque tomentoso, intus nigro; sporis albis, globosis 4-5 μ. diam.

Hab. ad terram in silvis mixtis, Gansevoort Amer. bor. — Pileus $2^1/_2$-7 cm. lat., stipes 2-5 cm. long. — *H. nigro* proximum sed structura diversum.

4. **Hydnum scabripes** Peck, 48 Rep. 1896, p. 13. — Pileo carnoso, 639
firmo, convexo, glabro, rubro-griseo, margine incurvato et ultra aculeos extenso; carne alba; aculeis albidis v. cinereis, demum ferrugineo-brunneis, decurrentibus; stipite obtuso, subæquali, scabroso-punctato; sporis subglobosis v. irregularibus, leniter nodulosis, coloratis, 7 μ. diam.

Hab. sub Tsuga canadensi, Elizabethtown Amer. bor. — Colore pilei et stipite punctato-scabrido facile dignoscitur.

5. **Hydnum vellereum** Peck, 50 Rep. p. 110. — Pileo subplano, co- 640
riaceo-duriusculo, centro sæpe inæquali v. colliculoso, tomentoso-velutino, albido v. cinereo (ob tomentum) v. ferruginascente; margine albido, intus fibroso, ferrugineo-brunneo; aculeis brevibus, 2 mm. long., albidis in brunneum vergentibus; stipite brevi pileo concolore sæpeque albo-tomentoso; sporis albis, globosis, minute echinulatis, 4 μ. diam.

Hab. inter folia dejecta in silvis, Port Jefferson Amer. bor. — Pileus 12-36 mm. lat.; stipes 12-20 mm. long., 4 mm. cr.

6. **Hydnum atro-viride** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, 641
p. 38, tab. I, fig. 5. — Pileo carnoso-coriaceo, atro-viridi, tenui, convexo-expanso, orbiculari, glabro; stipite plus minus deformato, brevi v. elongato, centrali v. excentrico, atro-viridi; aculeis gracilibus, acutis; sporis atro-viridibus, asperis, irregularibus, 6-9 μ. diam.

Hab. ad lignum putridum, Alabama Amer. bor. — Pileus 1-2 cm. diam.; stipes 1-2 cm. longus.

7. **Hydnum Uleanum** P. Henn. Hedw. 1897, p. 198. — Pileo coriaceo, 642
submembranaceo, apode vel substipitato, flabelliformi, alutaceo, radiato obsolete striato, margine tenui, integro, 3-5 cm. lato, $2^1/_2$-3 cm. longo; aculeis subulatis, integris, pallide ochraceis, densis, 1-$1^1/_2$ mm. longis, 110-180 μ. crassis, ad marginem subtuberculatis; sporis globosis, levibus, 7-8 μ. episporio brunneo vel fusco.

Hab. in ligno carbonaceo et ad truncum pr. Sao Francisco et Itajahy Brasiliæ (Ule).

8. **Hydnum andinum** Pat. Bull. Boiss. 1895, p. 55. — Pileo levi, membranaceo, tenui, $^1/_2$ cm. crasso, orbiculari, 12–15 mm. diam., plano, rufo-ochraceo, pruina alba consperso; stipite brevi, erecto, tereti, 5 mm. longo, 1–2 mm. crasso, brunneo-ochraceo, pruinoso, lateraliter adfixo; aculeis albis, confertis, gracilibus, acutis, simplicibus, pruinosis; cystidiis hyalinis, subfusoideis, acutis, 10 μ. altis, levibus; sporis globosis, hyalinis, minute asperulis, 5–6 μ. diam.; trama albida, firma, epelliculosa. 643

Hab. ad truncos emortuos in Æquatoria (v. Lagerheim).

9. **Hydnum basi-asperatum** P. Henn. Hedw. 1897, p. 199. — Pileo coriaceo, tenui, flabellato, plano, lobato-inciso, pallide alutaceo, ochraceo, zonato, 4–8 cm. lato, 3–5 cm. longo, levi, glabro, basi usque ad medium asperato, atro-cinnamomeo, setulis subulatis, erectis dense tecto, margine tenui, rigido; hymenio alutaceo; aculeis subulatis, compressis, densis, erectis, interdum apice fimbriatis, cinereo-alutaceis, 1-1 $^1/_2$ mm. longis, 100–150 μ. crassis. 644

Hab. ad truncos pr. Blumenau Brasiliæ (Ule).

10. **Hydnum albo-canum** Britz. Hymen. Kunde, III, 1897, p. 12, fig. 98 (*Persooniana*). — Carnosum, sordide brunneolum v. griseolum, glabrum, opacum; aculeis albido-griseis, parum plicatis, irregulariter incisis; sporis 3-4 × 1-1 $^1/_2$, oblongo-rotundis, curvulis. 645

Hab. ad truncos vetustos in Bavaria.

11. **Hydnum caperatum** Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 114. — Pileo carnoso-coriaceo, orbiculari, pendulo, vertice stipitiformi adfixo, tomentoso-hispido, margine integro v. lobato, recto, tenui; aculeis regularibus, acutis, integris, confertis, 1-5 mm. longis; cystidiis nullis; contextu albo. 646

Hab. in silvis, Java (Massart). — Pileus 6-10 cm. latus.

12. **Hydnum javanicum** Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 114. — Pileo 6 cm. lato, imbricato, suborbiculari, sessili, postice adfixo, plano, striolato, villoso, margine recto, obtuso, crasso; aculeis confertis, brevibus, 1–2 mm. longis, cylindraceis, obtusis. 647

Hab. ad truncos in silvis, Java (Massart).

13. **Hydnum rigido-squamulosum** P. Henn. Hedw. 1897, p. 198. — Resupinatum, crustaceum, subiculo nudum, vix tomentosum, pallide alutaceum; aculeis rigidis, subulatis, raro subcompressis, dense squamis rigidis pallidis tectis; sporis subglobosis, hyalinis, 3 $^1/_2$–4 μ. 648

Hab. ad cortices truncorum pr. St. Catharina Brasiliæ. (Ule).

14. **Hydnum chrysocomum** Underw. Bull. Torr. Bot. Cl. 1897, p. 82. — Resupinatum, 2–6 cm. effusum; mycelii hyphis repentibus, plus 649

minus ramosis, aurantiacis, [illegible] expansis; subiculo tenui, margine albido-fimbriato, aurantiaco, intus flavo; aculeis confertis, 1 mm. v. ultra longis, sæpe confluentibus, teretibus, concoloribus, subobtusis.

Hab. ad ligna corrupta, Staten Island, New York Amer. bor.

15. **Hydnum coniophoroides** P. Henn. Hedw. 1897, p. 199. — Resupinatum, carnoso-membranaceum, subiculo membranaceo albo; aculeis confertis, compressis vel subacutangulis, apice obtuso-rotundatis, fusco-ochraceis $1^1/_2$–$2^1/_2$ mm. longis, $^1/_2$–1 mm. latis; sporis ellipsoideis, 4–$4^1/_2 \times 3$ μ., episporio fusco, levi. 650

Hab. ad lignum? pr. Rio de Janeiro Brasiliæ (Glaziou).

16. **Hydnum flavicans** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati 3. ser. III, fasc. 1–2, 1897, p. 95. — Subiculo crustaceo, arcte adnato, stramineo-flavo, tenui; aculeis confertis, tereti-subulatis v. depresso-conicis, glabris, tenacibus, coriaceis, concoloribus, ex hyphis $2^1/_2$–3 μ. latis conflatis; sporis non visis. 651

Hab. ad corticem Quercus in Hungaria (Kmet'. — Aculeis coriaceis, sæpe dentiformibus, ad *Irpicem* accedit.

17. **Hydnum glaucum** Pat. Ann. Jard. Buitenz. 1897, 1 suppl. p. 115. — Omnino resupinatum, late effusum, ceraceo-membranaceum; aculeis obliquis, confertis, cylindraceis, acutis, glabris, rufo-violaceis; sporis hyalinis, cylindraceo-aculeatis, 6 × 2. 652

Hab. ad lignum putridum in silvis, Java (Massart).

18. **Hydnum Dusenii** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 87. — Resupinatum, tenue, ceraceo-crustaceum, tabacinum, subiculo membranaceo, subvilloso, pallidiore; aculeis subulatis, interdum subfasciculato-confertis, inæqualibus, acutis, ferrugineis; sporis non visis. 653

Hab. ad cortices truncorum, Camerunia (Dusén).

19. **Hydnum citrsum** Pat. Bull. Boiss. 1895, p. 55. — Subiculo latissime effuso, undique adnato, tenuissimo, citreo-aurantiaco; aculeis brevibus, obtusis, concoloribus; trama silvida, cerasea, undique hymenio tecta; basidiis clavatis; cystidiis nullis; sporis hyalinis, levibus, minutis, ovoideis, 3–4 × $2^1/_2$. 654

Hab. ad truncos vetustos dejectos in Æquatoria v. Lagerheim'. 655

20. **Hydnum rimulosum** Peck, 49 Rep. Stat. Bot. N. York, 1896, p. 20. — Resupinatum, tenue, a matrice non separabile, orbiculare, 5–7 mm. latum vel confluendo majus ac irregulare; hymenio minute rimoso, pallide ochraceo, margine floccoso-tomentoso, albo; aculeis

brevibus teretibus, confertis, subacutis, ochraceis, sæpe albis et apice subciliatis; sporis minutis, ellipticis, 4-5 × 2-3.

Hab. ad corticem emortuum Alni incanæ, New York Amer. bor. — E vicinia *Hydni ciliolati, H. hypoleuci, H. laminiferi* etc., sed cum nullo horum apte conjungendum.

21. **Hydnum ochraceo-fulvum** Britz. Hymen. Kunde II, 1896, p. 11, fig. 81. — Aculeis plus minusve acutis, luteo-albidis; subiculo concolori, ceraceo-carnoso; sporis 10-11 × 5-6. 656

Hab. ad ramos putridos Quercus in Bavaria.

22. **Hydnum serratum** Peck 50 Rep. p. 112. — Resupinatum, album; subiculo tenui, subgelatinoso, e livido albo v. cyanescente; aculeis crebris, brevibus, subconfluentibus in fasciculos minutos, compactos, compressis, ubique serrulatis, albis, subinde stramineis, 657

Hab. in ligno decorticato Abietis Marianæ, Adirondack Mount. Amer. bor. — Affinis *H. indico* Sacc. et Syd. et *H. fasciculari* B. et C.

23. **Hydnum separans** Peck, 50 Rep. p. 112. — Resupinatum, album; subiculo membranaceo, pure albo dein flavido v. cremeo; aculeis subulatis, glabris, crebris, 4-6 mm. long., fragilibus, a subiculo facile secedentibus atque alveolares impressiones relinquentibus; sporis globosis, hyalinis, 4 μ. diam. 658

Hab. in lignis putridis, Adirondack Mount. Amer. bor.

24. **Hydnum indicum** Sacc. et Syd. Sic nominandum *H. Artocreas* B. et Massee (1892) Syll. XI, p. 108, nec homonymon B. et C. (1891).

IRPEX Fr. — Syll. VI, p. 482, IX, p. 213, XI, p. 110. — Cfr. Grev. XIX, p. 109.

1. **Irpex effusus** P. Henn. Hedw. 1897, p. 198. — Resupinatus, late effusus, adnatus, membranaceo-carnosulus, albo-flavescens, subiculo tenerrimo; aculeis floccosis, obliquis, pendulis, membranaceis, tenuibus, laxis, late compressis, interdum subtubuliformibus; sporis globosis vel subellipsoideis, hyalinis, levibus, 3-4 × 3. 659

Hab. ad truncos pr. Blumenau Brasiliæ (Möller).

2. **Irpex conjunctus** Britz. Hymen. Kunde III, 1897, p. 12, fig. 108. — Dentibus plicatis, subgloboso-incisis, rotundato-acutatis, undulato-conjunctis, sordide luteolis; sporis 8 × 2-3, curvulis. 660

Hab. ad ramos in Bavaria.

3. **Irpex brevidens** Pat. Bull. Boiss. 1895, p. 55. — Resupinatus, arcte adnatus, 10-15 cm. diam., tenuis, dilute ochraceus, margine sterili albido, membranaceo, levi, tenuissimo, glabro v. flocculoso, 661

lato cinctus; hymenio minutissime reticulato-poroso, dentibus integris v. laceratis, planiusculis v. teretibus, 200 μ., altis formato; basidiis clavatis; sporis ovoideis, hyalinis, levibus, 4-5 × 3 1/2 μ; cystidiis nullis.

Hab. ad ligna emortua in Æquatoria (v. Lagerheim).

4. **Irpex quisquiliaris** Pat. Bull. Boiss. 1895, p. 55. — Sessilis, re- 662
supinatus, orbicularis, 3-20 mm. diam., tenuis, coriaceo-lignosus, sparsus vel confluens; pileo azono, fusco, levi, breviter sericeo-velutino, margine libero plus minus reflexo, acuto, tenui, sinuato incisove; hymenio brunneo-fusco, glabro, primitus levi, dein tuberculoso-aculeato; aculeis teretibus v. compressis, lignosis, obtusis, confertis, radiantibus v. inordinatis, 1/2 mm. longis; cystidiis numerosis, longissimis, fusco-brunneis, acutis, crasse tunicatis; contextu fulvo.

Hab. ad fragmenta lignea dejecta in Æquatoria (v. Lagerheim).

5. **Irpex ? lamellosus** Pat. Bull. Boiss. 1895, p. 56. — Pileo hori- 663
zontali, subreniformi vel ovato-spathulato, rufo, pusillo, 2-3 mm. longo, minute villoso, coriaceo-lignoso, margine acuto, inciso, striatulo; hymenio rufo, infero, undique lamellulis radiantibus confertis, lacerato-dentatis obsito; cystidiis nullis, contextu albo; stipite laterali, rufo, tereti, 2-4 mm. longo, vix 1 mm. crasso, farcto, villosulo, basi inflatulo, nigricante.

Hab. ad ligna putrescentia in Æquatoria (v. Lagerheim).

RADULUM Fr. — Syll. VI, p. 493, IX, p. 214, XI, p. 111. — Cfr. Grev. XX, p. 3.

1. **Radulum Kmetii** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati 3 664
ser. III, fasc. 1-2, 1897, p. 102. — Longitudinaliter late effusum, vivide incarnatum, margine albo, coriaceo-molle, separabile, demum margine supero breviter reflexum, pileolatum, pileolis albidis, fibroso-rugosis v. margine ubique libero, cupuliforme; hymenio diu levi, dein tuberculato; tuberculis distantibus integris v. deformibus, apice multifidis v. cristatis, incarnatis, apice albido-tomentosis; sporis hyalinis, majusculis, ellipticis, uno latere compressis, 13-23 (plerumque 16-17) × 7-10 μ.; basidiis clavato-stipitatis, 40-45 × 12-13 μ.; hyphis subhymenialibus 2 1/2 μ.

Hab. in cortice Populi tremulæ in monte Sytno pr. Prencov Hungariæ (Kmet), in regione tridentina in cortice Sorbi Aucupariæ et Alni viridis. — Species pulcra, *R. pendulo* Fr. affinis, sed nunquam alba v. pallens; jam peltæ primordiales colore

læte incarnato-roseo gaudent. In prima evolutione e contra facile pro *Radulum molare* f. *incarnatum* sumitur.

2. **Radulum umbrinum** Bres. Hedw. 1896, p. 287. — Latissime effusum; subiculo membranaceo, secedente, alutaceo-umbrino, margine fimbriato, mox similari; tuberculis distantibus, variis, curtis v. elongatis, subconicis, sæpe conglomerato-confluentibus, carneo-fuscis, collabentibus; sporis stramineis, obovatis v. subglobosis, 3–$3^1/_2$ × 2-$2^1/_2$; hyphis subhymenialibus 4 μ. latis. 665

Hab. ad ligna pr. Blumenau Brasiliæ (Möller.). — Habitu externo omnino refert *Radulum molare* Pers., a quo differt tuberculis tenuioribus et sporis multo minoribus.

3. **Radulum irregulare** Britz. Hymen. Kunde III, 1897, p. 13, fig. 109. — Dentibus conicis, rotundatis v. irregulariter incisis, albidis v. luteolis, floccosis, velutinis; sporis 8-9 × $3^1/_2$, curvulis, albis. 666

Hab, ad ramos quercinos in Bavaria.

PHLEBIA Fr. — Syll. VI, p. 497, IX, p. 215, XI. p. 112.

1. **Phlebia blumenaviensis** P. Henn. Hedw. 1897, p. 198. — Omnino resupinata, effusa, tenui-papyracea, subceracea, subiculo pallido, fimbriato; hymenio venoso, plicato, olivaceo, margine rufo-brunneo, rugis radiato-cristatis; sporis subcylindraceis, hyalinis, 3 × 1. 667

Hab. ad lignum pr. Blumenau Brasiliæ (Möller).

2. **Phlebia Moelleriana** P. Henn. Hedw. 1897, p. 198. — Subgelatinoso-ceracea, in sicco tenui membranacea, rigida, resupinata, effusa, brunneo-aurantiaca; hymenio interrupte radiato, rugoso-cristato; sporis oblongis, hyalinis, 3-4 × $1^1/_2$. 668

Hab. in ligno vetusto pr. Blumenau Brasiliæ (Möller).

GRANDINIA Fr. — Syll. VI, p. 500, IX, p. 215, XI, p. 113.

1. **Grandinia fugax** Karst. Hedw. 1896, p. 173. — Orbiculari-vel elongato-effusa, membranacea, pertenuis, facillime solubilis, nivea, roseo-maculata, ambitu subtiliter fimbriatulo, hyalino, granulis rotundatis, confertis v. confertissimis; sporis ellipticis, hyalinis, 4-8 × 3-4; hyphis ramosis, remote articulatis, ad septa unilateraliter nodulosis, hyalinis, 1-5 μ. crassis. 669

Hab. in ligno putrescente Abietis excelsæ ad Mustiala Fenniæ.

2. **Grandinia granulosa** Fr. — Sacc. Syll. VI, p. 501. — Var. **Chusqueæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 208. — Effusa ceracea, in 670

sicco rimosa; hymenio rubro-viridulo; granulis rotundatis v. elongatis; margine ceraceo, glabro, nigrescente.

Hab. in culmis Chusqueæ, San Jorge, Æquatoria.

3. **Grandinia fusco-lutea** Ell. et Ev. Proc. Acad. Philad. 1895, p. 413. 671
— Membranacea, mollis, 1-10 cm. diam., dilute lutea, tuberculoso-granulosa, dein obscurior et siccitate levior; margine albo, gossypino v. arachnoideo; granulis minutis, apice albidis; hymenio demum rimoso, subiculo albo; sporis ellipticis, obscure luteis, 5-6 × 3; basidiis clavato-cylindraceis, circiter 15 × 6, 2-4-sterigmaticis; sterigmatibus brevibus, 4-5 μ.

Hab. in truncis putridis dejectis, New Jersey Amer. bor.

GRANDINIELLA Karst. Hedw. 1895, p. 8 (Etym. a *Grandinia,* cui affinis). — Hymenium udum subgelatinoso-ceraceum, siccitate corrugatum v. rimosum, granulosum; granulis hemisphæricis, mollibus. Cystidia subuliformia v. fusoidea. Sporæ ellipsoideæ v. oblongatæ.

1. **Grandiniella livescens** Karst. l. c. — Ceraceo-mollis, latissime ef- 672
fusa, tenuis, secedens, livida, siccitate pallescens, ambitu determinato, similari, hymenio contiguo, sicco rimoso; granulis sat confertis, hemisphæricis, inæqualibus, mollibus, majoribus; basidiis clavulato-cylindraceis, 4-5 μ. crassis; cystidiis subuliformibus, apice crassis muriculatis, hyalinis, 50-60 × 5-6, apice sæpissime usque ad 10 μ. crassis; sporis ellipsoideis v. oblongatis, rectis v. inæquilateralibus, eguttulatis, hyalinis, 3-4 × 1-1 $^1/_2$.

Hab. in ligno mucido Tiliæ ulmifoliæ pr. Mustiala Fenniæ. — A *Grandinia mucida* Fr., quacum *Peniophora convolvens* Karst. forte confluit, colore aliisque notis diversa.

ODONTIA Pers. — Syll. VI, p. 506, IX, p. 216, XI, p. 113.

1. **Odontia flavo-argillacea** Bres. Hedw. 1896, p. 286. — Late ef- 673
fusa, crustaceo-ceracea, e flavo avellanea, mycelio albo in corticem reptante, margine pruinato, arcte matrici adnata; dentibus papilliformibus, crassiusculis, subdistantibus, concoloribus, apice albo-fimbriatis; sporis non visis.

Hab. ad corticem arborum pr. St. Catharina Brasiliæ (Möller).

2. **Odontia andina** Pat. Bull. Boiss. 1895, p. 56. — Effusa, indeter- 674
minata, rimosa, crustacea, arcte adnata, albido-ochracea, ambitu similari; hymenio e papillis conicis, minutis, erectis, dense gregariis, $^1/_3$ mm. latis, acystidiatis, sæpe incrustatis obsito; basidiis 2-4-sterigmaticis; sporis ovoideis, hyalinis, levibus, 8-10 × 6-8.

Hab. ad cortices et ligna putrida in Æquatoria (v. Lagerheim).

3. **Odontia melleo-alba** Britz. Hymen. Kunde III, 1897, p. 14, fig. 105. 675
— Albida v. melleo-alba, subceracea; aculeis numerosis, sæpe confertis, 1 v. 2 denticulatis; sporis 6-7 × 3.

Hab. in ligno fagineo in Bavaria.

4. **Odontia incisa** Britz. Hymen. Kunde III, 1897, p. 13, fig. 101. 676
— Tenuis, albida, griseolo-albida; dentibus confertis, incisis; sporis 3 μ. diam.

Hab. ad truncos fagineos in Bavaria.

5. **Odontia conspersa** Bres. Atti R. Acc. Sc. Lett. ed Arti degli 677
Agiati, 3 ser. III, fasc. 1-2, 1897, p. 100. — Ex albo luride ochroleuca; subiculo tenerrimo, pruinoso-farinoso, vetustate obsoleto; aculeis subdistantibus, conicis, usque 1 mm. longis, ob cystidia asperulis, concoloribus; sporis hyalinis, cylindraceo-subcurvulis, guttulatis, 4-5 × 2 μ; basidiis clavatis, 15 × 4 μ; cystidiis fusoideis, crasse tunicatis, furfuraceo-asperulis, 50-70 × 8-10 μ.; hyphis subhymenialibus 2-3 μ. latis.

Hab. ad truncos Alni glutinosæ, Populi tremulæ etc. in Hungaria (Kmet). — *Odontiæ farinaceæ* proxima, sed sporis, cystidiis et subiculo tenuiori optime distincta.

6. **Odontia pannosa** Bres. Atti R. Acc. Sic. Lett. et Arti degli Agiati, 678
3 ser. III, fasc. 1-2, 1897, p. 98. — Subiculo tomentoso, crassiusculo, molli ex hyphis 4-6 μ. latis, ex albo pallide isabellino vel ochroleuco, late effuso, margine pruinoso; verrucis papillosis, apice multifidis, concoloribus; sporis ellipticis, hyalinis, 10 × 5-6 μ; basidiis clavatis, 25-30 × 7-9 μ.

Hab. ad corticem Aceris campestris et in ligno Quercus in Hungaria (Kmet). — *Od. corrugatæ* valde proxima, a qua præcipue differt subiculo crassiori ex hyphis latioribus conflato et colore nunquam rubescente.

7. **Odontia Schroeteriana** P. Henn. Hedw. 1897, p. 197. — Crustacea, 679
late effusa, flavo-ochracea, margine membranaceo, floccoso, dentibus papilliformibus, aggregatis, ochraceis, apice incisis, denticulatis; sporis ellipsoideis, hyalino-subflavescentibus, 4 × 3; mycelio flavo-ochraceo, tomentoso, in cortice repente.

Hab. ad lignum pr. Rio de Janeiro Brasiliæ (Ule). — *Odontiæ flavo-argillaceæ* Bres. affinis.

8. **Odontia badia** Pat. Journ. de Bot. 1897, p. 342. — Resupinato- 680
effusa, tenuis, initio flavo-ochracea, demum fulva, tota tomentosa;

aculeis fasciculatis, simplicibus v. furcatis, acutis, carnoso-ceraceis, vix $^1/_2$ mm. longis; cystidiis nullis.

Hab. in truncis putridis Psidii in Tonkin.

9. **Odontia Patouillardi** Sacc. et Syd. *Odontia hirta* Pat. Journ. de Bot. 1897, p. 342, nec Fuck. — Tota resupinata, effusa, ceraceo-membranacea, tenuis, vix rimosa, alba, dein pallide ochracea, raro glabra, vulgo tuberculis minutis confertis rigidis 2 mm. longis, obtusis, simplicibus v. rarius furcatis tecta; cystidiis lageniformibus, acutis, verrucosis, hyalinis, 40-50 × 7-10. 681

Hab. in ligno putrido in Tonkin.

10. **Odontia late-marginata** Pat. Journ. de Bot. 1897, p. 342. — Late effusa, resupinata, incrustans, cretacea, tenuis, membranacea, initio glabra ac corticioidea, demum tuberculis obtusis, brevibus, rigidis, crassis, confertissimis, apice rotundatis, integris omnino tecta; margine membranaceo concolori, 1-2 cm. lato; cystidiis hyalinis, cylindricis, 30 × 10, rugulosis, copiosissimis. 682

Hab. in ligno putrido in Tonkin.

11. **Odontia rimosissima** Peck, 50 Rep. p. 114. — Effusa, tenuissima, determinata, crustosa, adnata, crebre rimosa, albida dein pallida v. subinde griseo-ochracea, granulis minutissimis oculo inermi vix visibilibus, subconicis, distantibus, v. approximatis, apice setulam singulam v. plures gerentibus; sporis late ellipsoideis, plerumque 1-nucleatis, 5-6 × 3,5-4. 683

Hab. in lignis et corticibus Alni incanæ, Sand Lake Amer. bor.

HYDNELLUM Karst. Hedw. 1896, p. 173 (Etym. ab *Hydnum*, cui affine genus). — A *Kneiffia* sporis aculeatis diversum.

1. **Hydnellum subtile** Karst. Hedw. 1896, p. 173; *Kneiffia subtilis* Karst. Syll. IX, 216. — Sporis sphæroideis, longe aculeatis, 5-11 μ. diam. 684

Hab. in ligno Pini in Fennia.

KNEIFFIA Fr. — Syll. VI, p. 510, IX, p. 216, XI, p. 114.

1 **Kneiffia nivea** Karst. Hedw. 1896, p. 173. — Orbiculari-effusa, flocculoso-submembranacea, crustoso-adnata, tenuis, indeterminata, nivea, verrucis confertis, brevissimis, inæqualibus, conoideis v. setiformibus, superne ciliatis; sporis sphæroideis v. ellipsoideo-sphæroideis, uniguttulatis, 5 × 4 vel 3-4 μ. diam.; hyphis ramosis, articulatis, unilateraliter nodosis, 2-4 μ. crassis. 685

Hab. supra corticem Betulæ in agro Mustialensi Fenniæ.

HYDNOCHÆTE Bres. Hedw. 1896, p. 287 (Etym. *Hydnum* et *chæte* seta, h. e. *Hydnum* setulosum). *Hydnochæte* Peck, 50 Rep. p. 113 (1897) = *Hydnochætella* Sacc. supra pag. 11, non videtur satis differre. — Receptaculum resupinatum, suberoso-coriaceum; hymenium aculeato-dentatum, setulis subulatis, fulvis præditum; basidia tetraspora; sporæ hyalinæ. — Generi *Asterodonti* Pat. proximum, a quo præcipue differt receptaculo cystidiis stellatis haud farcto.

1. **Hydnochæte badia** Bres. l. c. — Late effusa, arcte adnata, subiculo 686
crasso, 2-3 mm., suberoso-coriaceo, fulvo-umbrino, hymenio varie configurato, aculeato, dentato v. tuberculoso, castaneo-badio, ubique setulis consperso; setulis fulvis, 45-75 × 9, simplicibus; basidiis clavatis 15-20 × 5-6; sporis stramineis, ellipticis, 5 × 3.

Hab. ad ligna pr. Blumenau Brasiliæ (Möller). — Sub tribus formis observata; prima perfecte hydnoidea, aculeis subulatis; secunda raduloidea, tuberculis teretibus crassiusculis, elongatis; tertia irpicoidea, dentibus basi favosa junctis. Habitu externo forma irpicoidea facile pro *Irpice portoricensi* haberi potest, qui mox dignoscitur defectu setularum.

2. **Hydnochæte setigera** Peck, 50 Rep. p. 113 (1897). — Subiculo 687
effuso tenui, submembranaceo, griseo- v. albido-fulvo, tomentello, setigero, margine levi, concolori v. fimbriato, albido; aculeis brevibus, conoideis, obtusis, pallidis, dein subulatis, 2 mm. long., villoso-setigeris, persistentibus, demum atro-ferrugineis; setulis simplicibus v. ramosis 40-60 μ. long., angustis, acutis; sporis subglobosis v. late ellipsoideis 5-7 μ. long.

Hab. in ligno putri Coniferarum, Adirondack Mount. Amer. bor. — Fungus perdurans, dein stratosus. Affinis *Caldesiellæ* sed setiger.

MUCRONELLA Fr. — Syll. VI, p. 512, IX, p. 218, XI, p. 115. —

1. **Mucronella togoensis** P. Henn. Engl. Jahrb. XXIII, p. 544. — 688
Alba; aculeis fasciculatis basi connatis (5-16), pendulis, curvatis, subulatis, 3-3 $^1/_2$ mm. longis, circiter 500 μ. crassis; basidiis clavatis, 12-15 × 7-8; sporis globosis, hyalinis, subflavescentibus, 4 $^1/_2$-6 μ. diam.

Hab. in cortice in Togo Afr. occ. (Baumann).

Fam. 4. **Thelephoraceæ** Pers.

CRATERELLUS Fr. — Syll. VI p. 514, IX p. 218.

1. **Craterellus pusio** Berk. Fl. Tasm. II, p. 258; Cooke, Handb. Austral. Fung. 1892, p. 178. — Aurantiacus; pileo laterali, convexo, 4–6 mm. lato; stipite sursum incrassato, 2–3 mm. longo; hymenio rugoso, venoso. 689

Hab. inter muscos, Tasmania Australiæ.

THELEPHORA Ehr. — Syll. VI, p. 521, IX, p. 220, XI, p. 115. — Cfr. Grev. XIX, p. 108, et XX, p. 34.

1. **Thelephora ninh-thaiensis** Pat. Journ. de Bot. 1897, p. 342. — Terrestris, erecta, 1–2 cm. alta, solitaria; stipite simplici, gracili, rigido, 1 mm. crasso ex albo pallido v. rubescente, pruinoso-villoso, apice in pileum infundibuliformem dilatato; pileo aut regulari, tenui, plus minusve radiato, fulvo, pallido v. nigrescente, aut in lobos diviso; lobis pilei crassis, expansis, plus minusve incisis, applanatis v. cylindraceis, obtusis v. acutis, extimis tantum hymenium in pagina inferiore gerentibus, internis quaque superficie hymeniferis; cystidiis nullis; basidiis clavatis; sporis hyalinis, levibus, subglobosis. 690

Hab. in silvis in Tonkin.

2. **Thelephora bidentata** Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 115. — Coriacea, erecta, rufo-pallida, e basi ramosa v. stipitata; stipite cylindraceo, 3–4 cm. longo, 4 mm. crasso, villoso, ramis inæqualibus, gracilibus, $1^1/_2$ mm. crassis, 1–2-furcatis, apice dilatatis, bidentatis; contextu albido, suberoso; hymenio amphigeno; cystidiis nullis; basidiis 2-4-sporis, clavatis, 30 × 10–12; sporis hyalinis, levibus, globosis, 6–8 μ. diam. 691

Hab. ad terram in horto bot. Buitenzorg, Java. — E vicinia *Thelephoræ amboinensis, Th. scopariæ, Th. palmatæ* etc., sed cum nulla harum apte conjungenda.

3. **Thelephora leucobryophila** P. Henn. Verhandl. Bot. Ver. Prov. Brandbg. XXXIX, p. XCVI. — Crustacea, subcarnosa, aurantiaca, siccitate contracta ac membranacea, mycelio arachnoideo-floccoso, luteo; hymenio e basidiis clavatis 21–27 × 5 μ. 2–4-sterigmata gerentibus composito; sporis ovoideis v. subgloboso-ellipticis, 7–8 × 5–6, luteo-brunneolis, verrucosis. 692

Hab. ad Leucobryum vulgare in horto botan. Berolinensi Germaniæ. — *Th. crustaceæ* proxima.

4. **Thelephora fissa** P. Henn. Hedw. 1897, p. 193. — Pileo tenui- 693
membranaceo, translucente, subflabellato vel subinfundibuliformi, laciniato-fisso, lobis laciniatis, tenuiter subulatis vel cuneatis, margine incisis, pallido-flavescente, radiato-lineato, azono; stipite laterali vel excentrico, subcompresso, albovilloso, interdum proliferante, usque ad $1^1/_2$ cm. longo, 1. mm. lato; hymenio albo, pruinoso, interdum subvenoso; sporis oblongo-ellipsoideis, hyalinis, levibus 5×2-$2^1/_2$ μ.

Hab. ad radices? pr. Blumenau Brasiliæ (Möller). — *Thelephoræ decoloranti* Berk. affinis.

5. **Thelephora ? sebacinoides** P. Henn. Hedw. 1897, p. 193. — Mem- 694
branacea, subcarnosula, sicco subcoriacea, rigida, cæspitosa, pileis stipitatis, erectis, subflabellatis, multifidis, albis, azonis, margine inciso lobatis, crispis; stipitibus basi confluentibus; hymenio levi, pallido; sporis subglobosis, ellipsoideis, hyalinis, levibus, guttulatis $3^1/_2$-$4^1/_2$ μ.

Hab. ad cortices truncorum in prov. St. Catharina Brasiliæ (Ule). — *Thelephoræ Sowerbyi* Berk. videtur proxima.

6. **Thelephora pinicola** Britz. Hymen. Kunde III, 1897, p. 14, fig. 67. 695
— Albida, carnoso-membranacea, rotundato-limitata, margine lato, fibroso; odore nullo; sporis 7-$8 \times 2^1/_2$-3.

Hab. ad truncos pineos in Bavaria.

7. **Thelephora cæsio-carnea** Britz. Hymen. Kunde III, 1897, p. 14, 696
fig. 68. — Carnosa, difformis, digitata, opaca, livido-lilacina v. cæsio-carnea, tenuis; sporis hyalinis, 18-20×6-8, intus granulis luteolis repletis, oblongo-rotundis, utrinque angustatis v. acutatis.

Hab. in silvis inter muscos, Bavaria.

8. **Thelephora tubaraoënsis** P. Henn. Hedw. 1897, p. 194. — Radiata, 697
effusa, coriacea, ramosa, plurifida, læte mellea $^1/_2$-3 cm. diametro, pileis conoideis vel subflabellatis, multifidis, laciniis sublinearibus; hymenio levi concolori; sporis subcylindraceis vel oblongis, hyalinis subflavescentibus, levibus, 10-15×4-5 μ.

Hab. ad lignum in silva pr. Tubarao Brasiliæ (Ule).

9. **Thelephora Uleana** P. Henn. Hedw. 1897, p. 194. — Pileo tenui, 698
membranaceo, sicco subcoriaceo, rigido, flabellato vel spathulato, subzonato, radiato, striato, margine lobato vel crenato, pallide flavescente, substipitato; stipite late compresso; hymenio levi glabroque, pallido, interdum rugoso, subverrucoso vel rimoso.

Hab. ad terram inter muscos pr. Tubarao et Blumenau Brasiliæ (Ule). — Species 1-2 cm. alta, 1-1,5 cm. lata; pileus flabellatus sensim in stipitem late compressum transiens.

10. **Thelephora sublilacina** Ell. et Ev. Bull. Labor. Nat. Hist. Univ. Jowa IV, 1896, p. 67. — Orbicularis, 2–4 mm. diam., sordide lilacina; hymenio tenui, circa marginem frustuloso, pedicellis v. potius radiculis e fibris numerosis erectis obscuris compactis; subiculo orbiculari, obscuro, adnato v. margine sublibero; membrana in apicibus fibrarum pallida. 699

Hab. ad ramos vigentes pr. Castillo Nicaraguæ. — An potius varietas *Th. pedicellatæ?*

11. **Thelephora subundulata** Peck Bull. Torr. Bot. Club. 1895, p. 492. — Pileo tenui, subcoriaceo, centro depresso, marginem versus plicato-undulato, subcinereo v. griseolo-brunneo; hymenio glabro, pallidiore, griseolo v. griseolo-luteo; stipite firmo, solido, raro ramoso, colore pilei; sporis late ellipticis, $7^3/_4 \times 5$. 700

Hab. ad terram, Delaware Amer. bor. (Commons). — Pileus circiter $1^1/_2$ cm. latus; stipes $2–2^1/_4$ cm. longus, 1 mm. crassus. *Th. undulatæ* affinis, sed præcipue differt hymenio glabro et sporis majoribus.

12. **Thelephora** *(Sebacina)* **mucedinea** Pat. Bull. Boiss. 1895, p. 60. — Resupinata, effusa, tenuissima, mucedinea, maculas albidas 1–3 cm. longas efficiens; contextu albo, ex hyphis ramosis, hyalinis, late contextis, 3 μ. crassis compacto; basidiis ovoideis, 2–4 cruciatim septatis, hyalinis, 15-18 × 10-12 μ.; sporis hyalinis, cylindraceis, curvulis, guttulatis, 10 × 5 μ. 701

Hab. ad fragmenta lignea dejecta in Æquatoria (v. Lagerheim). — *Th. Letendreanæ* affinis.

13. **Thelephora** *(Sebacina)* **reticulata** Pat. Bull. Boiss. 1895, p. 59. — Resupinata, irregulariter effusa, tenuis, fibrilloso-membranacea, non gelatinosa, margine fibrilloso-radiante, albo-alutacea, sub lente tenuissime reticulata; basidiis globosis vel ovoideis, stipitatis, hyalinis, 10–15 × 8–12; sporis non visis. 702

Hab. ad ligna denudata putrida in Æquatoria (v. Lagerheim).

14. **Thelephora helvetica** Sacc. et Syd. *Thel. pallida* Otth, Bern. Mittheil., 1868, p. 38, nec Pers. — Erecta, stipitata, simplex v. furcata, spathulata sæpe subinfundibuliformis, repando-incisa, pallide carneolo-ochracea, rubenti-squamulosa, 3-5 cm. alta. 703

Hab. inter conos abietinos et folia faginea in Bremgartenwald Helvetiæ. — Hymenium inferum venuloso-rugosum.

15. **Thelephora helvola** Sacc. et Syd. Sic. nominanda est *Thelephora liliputiana* Speg., Sacc. Syll. IX, p. 221, quum exstet anterior *Th. liliputiana* Mont., Sacc. Syll. VI, p. 531.

SEPTOBASIDIUM Pat. — Syll. XI, p. 118.

1. **Septobasidium Carestianum** Bres. Malpighia XI, 1897, p. 16 extr. 704
— Resupinatum, late effusum, membranaceum, ex avellaneo tabacino-castaneum v. badium, margine pallido, subfimbriato v. tomentoso; hymenio tomentoso e levi ruguloso-tuberculoso; contextu ex hyphis rigidis, septatis, luteo-fuscis 2-3 μ. conflato; basidiis primitus ovoideis dein elongatis, sæpe medio compressis, transverse septatis, 15-18 × 9-11; sporis non visis.
Hab. in ramis Salicis incanae in Italia (Carestia).

2. **Septobasidium rubiginosum** Pat. Ann. Jard. Buitenz. 1897, I, suppl. 705
p. 118. — Latissime effusum (20 cm. et ultra), omnino resupinatum, ambitu byssinum, subiculo rubiginoso, crasso, spongioso-fibroso, hymenio tenui, membranaceo, fragmentitio, ex hyphis ramosis, tenuibus, purpureis, circinantibus, subiculo oriundis composito; basidiis sparsis, globosis, dein cylindraceo-elongatis.
Hab. ad lignum emortuum in silvis, Java (Massart).

STEREUM Pers. — Syll. VI, p. 551, IX, p. 222, XI, p. 119. — Cf. Grev. XX, p. 34-35.

1. **Stereum Sprucei** Berk. Sacc. Syll. VI, p. 567. — Var. **cinereum** 706
P. Henn. Fungi camerun. I. in Engl. Jahrb. XXII, 1895, p. 84. — Coriaceum; pileo subflabelliformi-effuso, concentrice sulcato-zonato, subochraceo, zonis cinereis tomentosis, hymenio concentrice sulcato, levi, cinereo.
Hab. ad truncos, Kamerun (Dusén).

2. **Stereum Moelleri** Bres. et P. Henn. Hedw. 1896, p. 288. — 707
Pileo verticali, flabelliformi, sericeo, nigro-fusco, margine albicante, zonis concentricis, elevatis prædito, 1-2 cm. lato; stipite concolori, laterali, sericeo, 5-7 mm. longo, 2 mm. crasso, basi tuberoso-radicata, interdum magis quam stipite longa; hymenio pallido, levi v. subruguloso; basidiis clavatis, 15-20 × 5-6; sporis subglobosis, 3 × $2^1/_2$-3, hyalinis, uniguttulatis; hyphis subhymenialibus 2-3 μ. latis.
Hab. ad ligna pr. Blumenau Brasiliæ (Möller). — Habitu, coloribus etc. omnino *Hydnum graveolentem* Del. refert.

3. **Stereum crustaceum** Karst. Hedw. 1896, p. 45, syn. *Corticium* 708

acerinum Karst. in Oefvers. Finl. Basidsw. p. 415 pr. p. — Effusum, tenuissimum, subgrumosum, indeterminatum, arcte crustaceo-adnatum, leve, siccum parum rimosum, albido-pallens, opacum, ambitu similari; sporis ellipsoideo-sphæroideis v. subsphæroideis, 4–7 × 3–5.

Hab. ad corticem Populi tremulae et P. nigrae in agro Mustialensi in Fennia.

4. **Stereum flavo-ferrugineum** Karst. Hedw. 1895 p. 8 *(Xerocarpus).* 709 — Late effusum, crustaceo-adnatum, spurie papillosum, læte flavo-ferrugineum, ambitu similari, contextu grumoso; sporis non visis.

Hab. in ligno putrido Pini vel Abietis pr. Mustiala Fenniæ.

5. **Stereum muscicolum** Pat. Ann. Jard. Buitenz. 1897, I. suppl. 710 p. 116. — Pusillum, spathulatum, 3–6 mm. longum, 5 mm. latum, antice rotundum, postice cuneato-attenuatum, sub lente fiabellato-squamulosum, squamis innatis, floccosis, minutis, margine tenui, acuto, patenti, denticulato; hymenio infero, levi; basidiis clavatis, 6–10 × 4; cystidiis nullis; sporis hyalinis, ovoideis, 6–7 × 1–2.

Hab. ad muscos, Java (Massart).

6. **Stereum Karstenii** Bres. Atti R. Acc. Sc. Lett. ed Arti degli 711 Agiati 3 ser. III, fasc. 1–2, 1897, p. 108; *Xerocarpus odoratus* Karst. Hattsv. II, p. 137 (nec *Stereum odoratum* Fr.); *Phanerochæte odorata* Karst. Krit. Oefvers. p. 427; *Corticium pubescens* Rom. in litt. — Late effusum, primitus membranaceum, margine tomentosum, dein suberosum, ex adnato ambitu libero et facile ex integro separabile, albido-cremeum, demum luride et pallide cinnamomeum; hymenio levi v. vix hinc inde undulato-subtuberculoso, in vetustis substratoso, pubescenti-velutino; sporis hyalinis, cylindraceo-curvulis, 6–7 × 1 ½–2; basidiis clavatis; organis ductoriis in toto contextu sparsis, ultimis emergentibus, apice clavato, 6–7 μ. lato; hyphis 2 ½–3 μ.

Hab. ad truncos Abietis pectinatae in Suecia, Hungaria. — Species hæc valde *Stereo tuberculoso* proxima et in statu adulto facie simillima. In *Stereo tuberculoso* Fr. hymenium dense tuberculosum, pallidius; sporæ minores, organa ductoria obverse piriformia, 15–18 μ. lata et succo luteo repleta.

7. **Stereum Persoonianum** Britz. Hymen. Kunde, III, 1897, p. 15, 712 fig. 72. — Hymenio sordide isabellino v. ochraceo-carneo, opaco, pruinoso, gibboso, dein areolato-rimoso, lignoso, margine brunneo-nigro; sporis 6–7 μ. diam., luteolis, uniguttulatis.

Hab. ad truncos quercinos in Bavaria.

8. **Stereum fuscum** Britz. Hymen. Kunde III, 1897, p. 14, fig. 70. — Pileo fibroso, basi brunneo, margine lato et albo-fibroso; hymenio non fibroso nec piloso, albido usque brunneolo, margine fibroso; sporis 8 × 4, hyalinis, in cumulo albis. 713

Hab. ad truncos emortuos fagineos in Bavaria.

9. **Stereum carbonarium** Britz. Hymen. Kunde III, 1897, p. 14, fig. 69. — Subtus album, subtomentosum; hymenio amœne castaneo, opaco, margine lato alboque, carne alba v. luteola marginem versus brunneola, coriacea; sporis 6-7 × 2-3, pallide luteolis. 714

Hab. in carbonariis in Bavaria.

10. **Stereum fusco-olivaceum** Otth, Mitth. natur. Gesell. Bern. 1857, p. 40. — Pileo tenui coriaceo-molli, extus albido-olivaceo, pilosulo, expanso involutoque; hymenio initio pallide olivaceo, demum ex atro-rufo olivaceo-virenti. 715

Hab. in truncis pineis vetustis, Aarzieble pr. Bernam Helvetiæ.

11. **Stereum radiatum** Peck, — Sacc. Syll. VI, p. 571. — Var. **reflexum** Peck 49, Rep. Stat. Bot. N. York, 1896, p. 31. — Margine anguste reflexo, crispato sublobatoque, nigro; hymenio inæquali, tuberculoso. 716

Hab. ad truncos Abietis nigræ in montibus Adirondak Amer. bor.

12. **Stereum Puiggarii** Speg. — Sacc. Syll. IX, p. 225. — Var. **zonatum** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 155. — A typo differt pileo zonato. 717

Hab. ad lignum in Costa-Rica.

13. **Stereum fulvidum** Otth, Bern. Mittheil. 1868, p. 39. — Postice adnatum, tenue, ambitu liberum et reflexum; pileo villoso, fulvecenti-albido, subzonato; contextu coriaceo, albo; hymenio glabro, rufo-fulvido, levi aut leniter rugoso. 718

Hab. ad truncos fagineos in Helvetia. — Cm. 2,5 long. et paullo minus, lat., vere tenue.

14. **Stereum Martini** Sacc. et Syd. Sic nominandum est *Stereum pannosum* Cke. et Mass., Sacc. Syll. XI, p. 120, quum exstet anterius *St. pannosum* Cke., Sacc. Syll. VI, p. 567.

15. **Stereum tasmanicum** Sacc. et Syd. Ita est dicendum *S. concolor* Berk., Syll. VI, p. 566, extante anteriore *S. concolori* Jungh.

HYMENOCHÆTE Lév. — Syll. VI, p. 588, IX, p. 227, XI, p. 122.

1. **Hymenochæte formosa** Lév. — Syll. VI, p. 589. — Var. **frondosa** Bres. Hedw. 1896, p. 289. — Pileis plurimis alternatim v. ver- 719

ticillatim ex stipite communi prodeuntibus, spathulatis, ad stipitem attenuato-stipitatis v. rarius sessilibus, vaginantibus, ferrugineis, zonis badiis demum variegatis, coriaceo-papyraceis, velutinis et setulis fulvis hirtellis, 1 ½–2 cm. latis, margine fimbriatis; hymenio levi, concolore, setulis fulvis, uti in pileo, 100–180 × 9–15 prædito; stipite communi tereti, basi toruloso, 10–12 cm. longo, 3–4 mm. crasso, supra dimidium frondoso-pileato, concolore, tomentoso, setulis fulvis, ejusdem dimensionis et formæ prout in pileo hymenioque, hirto; sporis non visis.

Hab. ad terram pr. Blumenau Brasiliæ mer. (Möller).

2. **Hymenochæte infundibuliformis** P. Henn. Hedw. 1897, p. 192. — 720
Pileo coriaceo, molli, vertice affixo, sessili, subconchiformi v. subinfundibuliformi, sulcato-zonato, velutino-tomentoso, ochraceo, ca. 4-5 cm. diam., hymenio velutino, badio, setis simplicibus, hyalino-brunneolis, apice obtusis, ca. 30-50 μ. longis, 4-5 μ. crassis tecto; sporis subglobosis, hyalinis, levibus, 3 ½–4 μ.

Hab. ad lignum pr. Rio de Janeiro Brasiliæ (Ule).

3. **Hymenochæte tabacina** (Sow.) Lév. — Sacc. Syll. VI, p. 590. — Var. 721
colliculosa Sacc. Malpighia, 1896, p. 263. — Hymenio effuso (forma pileata non visa) obscurius tabacino, ubique dense minute granuloso-colliculoso, setulis aureo-fulvis, 60–7 × 6–7.

Hab. in cortice Caraganae, Sibiria.

4. **Hymenochæte fusco-lilacina** Britz. Hymen. Knde III, 1897, p. 15, 722
fig. 73. — Coriacea, carnoso-suberosa, ferruginea; hymenio fusco-lilacino; setis sub microsc. luteo-brunneis, 120–180 × 5–6: sporis 7 × 2 ½, oblongo-rotundis, curvulis

Hab. ad truncos vetustos Abietis excelsae in Bavaria.

5. **Hymenochæte fusca** Karst. Hedw. 1896, p. 174. — Longitudinaliter 723
effusa, adnata, grumosa, arida, determinata, contigua, levis, fusca, setis acutis, strictis, ferrugineis, usque ad 80 μ. longis et basi 8 μ. crassis obsessa.

Hab. in ligno vetusto in Suecia media (K. Starbaeck). — *H. corrugatæ* proxime accedit.

6. **Hymenochæte rudis** Karst. Hedw. 1896 p. 173. — Longitudinaliter 724
effusa, adnata, mox floccoso-grumosa, arida, crassa, determinata, inæquabilis, obscure ferruginea, setis acutis, strictis, ferrugineis, usque ad 100 μ. longis et basi 10 . crassis conspersa, demum in areolas frustulatas dirupta.

Hab. in cortice Alni incanae pr. Mustiala Fenniæ. — *H. unicolori* (Berk.) affinis, forte ejus varietas.

CORTICIUM Fr. — Syll. VI, p. 603, IX, p. 230, XI, p. 124. — Cfr. Grev. XX, p. 12.

1. **Corticium aureum** Pat. Journ. de Bot. 1897, p. 343. — Effusum, 725
tenue, a matrice inseparabile, aureum, siccitate rubescens, glabrum, tuberculis minutis rotundatis sparsis rugulosum, margine pallide aureo; basidiis clavatis, 40 [illegible] longis, 2-4-sterigmaticis; cystidiis nullis; sporis hyalinis, ovoideo-rotundatis, minutis, 4 × 3.

Hab. in ramis emortuis et in culmis siccis Bambusae, duobus locis in Tonkin.

2. **Corticium calothrix** Pat. Cat. rais. pl. cell. Tunisie, p. 59. — Ef- 726
fusum, adglutinatum, ceraceum, albidum, totum in glebulas minutas solutum, undique ciliatum, margine farinaceo; contextu tenui, albo, ex hyphis hyalinis septatis laxe intricatis 3-8 μ. crassis composito; basidiis minutis, hyalinis, clavatis, 13-15 × 6; sporis non visis; cystidiis numerosis, cylindraceis, rectis v. flexuosis, levibus v. rugosis apice rotundatis, sæpe leviter inflatis, 50-80 × 5-6.

Hab. ad lignum denudatum Pini halepensis in Tunisia.

3. **Corticium cremorinum** Britz. Hymen. Kunde. III, 1897, p. 15, 727
fig. 61. — Sporis luteolis, 6 μ. diam., sub cumulo albidis v. carneo-albidis.

Hab. ad truncos Abietis in Bavaria.

4. **Corticium album** Britz. Hymen. Kunde. III, 1897, p. 15, fig. 78. 728
— Subcrassum, extus intusque album, margine fibrosum; hymenio candido, subnitente; sporis 5 × 2 1/2, albis.

Hab. ad lignum quercinum in Bavaria.

5. **Corticium ferax** Ell. et Ev. Americ. Natur. 1897, p. 339. — 729
Tenue, farinaceum, albidum, immarginatum; hymenio luteolo, glabro, centro mox evoluto, ceraceo; sporis ellipticis, hyalinis, abundantibus, 4 × 3.

Hab. in ligno emortuo in Canada (Macoun).

6. **Corticium confluens** Fr. Syll. VI, p. 628. — Var. **tunetanum** 730
Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 59. — Lignicolum, decorticans, latissime effusum, tenuissimum, hyalinum, gelatinoso-ceraceum, albido-vel ochraceo-roseum, sub lente pruinosum, margine nudo, indistincto; contextu tenui, compacto; cystidiis nullis; basidiis clavatis, elongatis, 4-sterigmaticis; sporis hyalinis, levibus, globoso-ovatis, 1 guttulatis, 6-8 × 5 μ.

Hab. in ramis Quercus Mirbeckii in Tunisia.

7. **Corticium cerebrinum** Pat. Ann. Jard. Buitenz. 1897, I. suppl 731
p. 116. — Effusum, adglutinatum, albidum, ceraceum, in glebulas

minutas solutum; contextu albo, stratoso; cystidiis hyalinis, acutis, minutis, 15–25 × 4–6.

Hab. in corticibus arborum in silvis, Java (Massart).

8. **Corticium ochraceo-lividum** Pat. Bull. Boiss. 1895, p. 57. — Resupinatum, effusum, arcte adnatum, ceraceum, non rimosum, leve, ochraceo-lividum; margine fugaci, albo-pulverulento; cystidiis nullis; sporis ovoideo-curvulis, levibus, hyalinis, 6 × 1-2 μ. 732

Hab. ad ligna emortua in Æquatoria (v. Lagerheim).

9. **Corticium stratosum** Pat. Bull. Boiss. 1895, p. 57. — Omnino resupinatum, arcte adnatum, crassiusculum, suberoso-induratum, immarginatum, late effusum, leve aut rugulosum, rimosissimum; hymenio incarnato, sub lente pruinoso; cystidiis subconicis, rugulosis, crasse tunicatis, albis, 16-20 × 10; contextu distincte stratoso, roseo-ochraceo; sporis non visis. 733

Hab. ad cortices in Æquatoria (v. Lagerheim). — *C. incarnatum* in mentem revocat.

10. **Corticium agglutinans** Pat. Bull. Boiss. 1895, p. 57. — Effusum, incrustans, tenue, himantioideum, albido-ochraceum, non rimosum, leve, venosum vel minute rugosum, margine adpresso-sericeo; contextu tenui, compacto; basidiis clavatis; cystidiis hyalinis, crassiuscule tunicatis, protoplasmate repletis, levibus v. minute granulosis, teretibus aut conicis, rectis, distantibus, 30-45 × 5-7; sporis hyalinis, levibus, ovoideis, 8 × 5 μ. 734

Hab. ad truncos putridos in Æquatoria (v. Lagerheim). — *C. lacteo* affinis.

11. **Corticium atratum** Bres. Hedw. 1896, p. 290. — Late effusum, adnatum, membranaceo-ceraceum, demum late rimosum, sub lente pruinatum, ex atro murinum, ambitu similari; sporis hyalinis, obovato-elongatis, 8–10 × 4–5½; hyphis subhymenialibus conglutinatis, septato-nodulosis, 4–5 μ. latis. 735

Hab. ad ligna pr. Blumenau Brasiliæ (Möller). — Species valde *Corticio cæruleo* affinis, a quo colore, margine similari, substantia tenuiore et hyphis minus distinctis diversa.

12. **Corticium leptaleum** Ell. et Ev. Field Columb. Mus. X, 1896, p. 170. — Tenue, arcte adnatum, griseo-album, pulverulentum, mox rimosum et areas 2-3 mm. latas formans, margine inflexo; sporis oblongis, hyalinis, continuis, 10–12 × 4; basidiis cylindraceis, 30-40 × 6, sterigmatibus duobus firmis. 736

Hab. in truncis Magnoliæ Fraseri in W. Virginia (Nuttall). — Adsunt etiam sporæ minores globosæ vel ellipticæ, 5–7

× 3-3 $^1/_2$. An hæ sunt sporæ immaturæ? Margines arearum sæpe ita inflexi ut *Peziza* speciem simulet.

13. **Corticium gilvescens** Bres. Hedw. 1896, p. (61). — Effusum, ad- 737
glutinatum, ceraceo-molle, ex albo isabellinum, ambitu pruinato-radiato, mox similari; hymenio levi glabro, sicco rimoso; sporis hyalinis, subglobosis vel ellipsoideis, 9-10 × 7-8 μ.; basidiis clavatis 60-65 × 10-12 hyphis tenuibus, noduloso-septatis, 2 $^1/_2$-4 μ. latis.

Hab. ad ramos Spiraeae sp. Wilmersdorf pr. Berlin. (Sydow). — *Corticio bombycino* Somm. affine, a quo hymenio crassiore, ceraceo, basidiis longioribus et hyphis strictioribus præcipue distinctum.

14. **Corticium pelliculare** Karst. Hedw. 1896, p. 46. — Effusum, in- 738
determinatum, adnatum, pertenue, hymenio ceraceo, membranaceo, tenuissimo, albo v. albido, in alutaceum v. lutescentem levissime vergente, sicco vulgo rimoso, ambitu similari; sporis ellipsoideis, 5-7 × 2-3; basidiis 18-22 × 5-7.

Hab. supra corticem et lignum Alni et Betulæ pr. Mustiala Fenniæ.

15. **Corticium rimicolum** Karst. Hedw. 1896, p. 45. — Longitudina- 739
liter effusum, indeterminatum, ceraceum, pertenue, adglutinatum, ambitu similari, cæsium v. cœruleo-glaucum, siccum sporis albo-pruinosum; contextu minute parenchymatico; sporis sphæroideo-ellipsoideis v. sphæroideis, hyalinis, 8-10 × 6-8.

Hab. in rimis corticis crassioris Populi in agro Mustialensi in Fennia.

16. **Corticium subochraceum** Bres. Hedw. 1896, p. 290. — Late ef- 740
fusum, tenue, subceraceum, adglutinatum, contiguum, e luteo luride-ochraceum vel isabellinum, margine primitus albo-subfimbriato, dein similari; sporis stramineis, ellipsoideis, 6-8 × 4-4 $^1/_2$; basidiis clavatis, 15-20 × 6; hyphis subhymenialibus conglutinatis, 3-5 μ. latis.

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Möller). — Externa facie *Corticium alutarium* B. et C. simulat, sed structura microscopica prorsus diversa.

17. **Corticium tuberculatum** Karst. Hedw. 1896, p. 45. — Orbiculare 741
v. elongato-effusum, determinatum, adnatum, crassiusculum, hymenio ceraceo, præcipue in statu udo colliculoso v. tuberculoso, albido, mox alutaceo, ambitu radiato-fibrilloso v. nudo; sporis ellipsoideis v. sphæroideo-ellipsoideis, eguttulatis, 5-7 × 3-4.

Hab. in cortice crassiore vetusto Populi tremulæ, in re-

gione Mustialensi in Fennia. — A *Corticio confluente* affini hymenio colliculoso sporisque diversum.

18. **Corticium radicatum** P. Henn. Pilze Ostafr. p. 54. — Resupinato- 742
effusum e mycelio radiciformi, ramoso tomentoso flavo oriundum, ambitu subtomentoso, coriaceo-spongiosum, flavo-ochraceum; hymenio subruguloso, tuberculato, albo-pruinoso v. setuloso, setulis subsubulatis, hyalinis, obtusis v. acutiusculis, 30-40 × 7-10; sporis subglobosis, uniguttulatis, levibus, subhyalinis, 5-6 × 4-5. membrana subflavescente.

Hab. ad truncos vetustos in Africa trop. (Holst) — *C. sulphureo* Fr. affine, sed sporis diversum.

19. **Corticium portentosum** B. et. C., Syll. VI, p. 636. — Var. **cry-** 743
stallophorum Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 125. — Arcte adnatum, corticis inæqualitate asperulum, cremeum, circiter $^1/_2$ mm. crassum, stratosum, tenax, coriaceum, margine determinato, interdum obscure subfimbriato, late effusum, confluendo 10 cm. longum, 4–6 cm. latum, contextu ex hyphis dense intricatis composito, crystalla amorpha numerosa includente.

Hab. in cortice truncorum, Louisiana Amer. bor. (Langlois). — Habitu externo *Corticium leve* Pers. simulat.

20. **Corticium pruinosum** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 60. 744
— Effusum, latissime expansum, tenuissimum, subgelatinosum. pruinosum, violaceo-cinereum; contextu hyalino, tenui; basidiis 4-sporis, 10 μ. latis; cystidiis sparsis, erectis, cylindraceis, hyalinis, apice obtusis, basi vix incrassatis, levibus, tenuiter tunicatis, pellucidis, 60-70 × 8-10; sporis hyalinis, levibus, cylindraceo-ovatis, curvulis, 8–9 × 5.

Hab. in ligno putrido Quercus in Tunisia.

21. **Corticium Zurhausenii** Bresad. ap. Rick in Oesterr. bot. Zeitschr. 745
1898, n. 4. — Effusum, in plagulas irregulares 1-5 cm. long., 1-2 cm. latas distributum, margine similari, æque crasso, mox libero et sæpe subreflexo, primitus ceraceum, dein indurato-aridum, fragile nec proprie lignosum, e pallido crustulinum, vetustate albicans; hymenio ut plurimum tuberculato, demum late rimoso; substantia alba, 1-1 $^1/_2$ mm. cr. demum friabili; sporis elongatis, uno latere depressis, hyalinis, 8-10 × 4-5; basidiis clavatis 25 × 7-8; hyphis contextus tenuibus, conglutinatis, septatis, 3-5 μ. cr., mox degeneratis et grumoso-collapsis.

Hab. ad truncos mucidos Fagi, Saminathal Vorarlberg Austriæ. — *Stereo candido* (quod teste A. Bresadola esset *Corticii* species)

affine, differt colore, forma magis elongata, hymenio tuberculoso etc.

22. **Corticium Rickii** Bres. ap. Rick in Oesterr. bot. Zeitschr. 1898, n. 4. — Effusum, subrotundum v. polygonale, sæpe confluens, membranaceo-molle, margine primitus subfimbriato, dein similari et sublibero, ex albo cremeum, exsiccando candicans; hymenio in vegeto subrotundato, in sicco levi et rimoso; sporis globosis, hyalinis, 7,5-9 × 7,5-8,5, crasse apiculatis; basidiis clavatis, 30-35 × 9-10; hyphis parcis, conglutinatis, parum distinctis. 716

Hab. ad truncos et corticem Sambuci nigræ, Vorarlberg Austriæ. — Affine *C. confluenti,* a quo substantia molliori, haud ceracea et sporis constanter globosis præcipue distinguitur.

23. **Corticium subroseum** Sacc. et Syd. Sic nominandum est *Corticium roseolum* Karst.-Sacc. Syll. IX, p. 234, quum exstet anterius *C. roseolum* Mass.-Sacc. Syll. IX, p. 233.

ASTEROSTROMA Massee. — Syll. IX, p. 236, XI, p. 128.

1. **Asterostroma pallidum** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, p. 38, tab. I, fig. 6. — Effusum, dense agglutinatum, leve, pallidum, margine integro; subiculo hyalino-fibrilloso, hyphis numerosis stellatis brunneis elongatis acutisque 40-60 μ. longis immixtis; sporis hyalinis, globosis, echinulis paucis gracilibus tectis, 6-7 μ. diam. 747

Hab. ad ligna vetusta late effusum, California (Mc Clatchie).

PUNCTULARIA Pat. Bull. Boiss. 1895, p. 57 (Etym. *punctulum*). — Receptaculum resupinatum, coriaceo-membranaceum, tuberculis carnosulis, marginatis, globosis, confertissimis obsitum; basidiis clavatis, 2-4-sterigmaticis; sporis hyalinis, ovoideis; cystidiis nullis.

1. **Punctularia tuberculosa** Pat. l. c. — *Corticium tuberculosum* Pat. Bull. Soc. Myc. 1892, p. 118; Sacc. Syll. XI. p. 126.

Hab. ad truncos putridos in Æquatoria (v. Lagerheim).

PENIOPHORA Cooke. — Syll. VI, p. 640, IX, p. 237, XI, p. 128.

1. **Peniophora trachytricha** Ell. et Ev. Proc. Acad. Philad. 1895, p. 413. — Tenuis, e lacteo luteola, effusa, superficie primo minute granulosa, demum floccoso-tuberculosa, *Kneiffiam* simulans, margine tenui, granuloso-gossypino; basidiis clavato-cylindraceis, 12-15 × 3 ½-4 ½; sporis oblongis, obtusis, 7-8 × 3-3 ½, hyalinis; cystidiis subcylindraceis, dense tuberculoso-asperis v. interdum 748

parte superiore levibus et apice tumidis, 100-120 × 10-12, parte excedente 40-50 μ. longis.

Hab. in cortice ramorum Quercus, New Jersey Amer. bor. — *P. hydnoidi* affinis.

2. **Peniophora galochroa** Bres. Hedw. 1896, p. 290. — Late effusa, membranacea, ex albo cremoricolor, ambitu primitus subfimbriato, mox similari, demum rimosa interstitiis sericeis; sporis hyalinis, ellipticis, 5 1/2-6 1/2 × 4-4 1/2; basidiis clavatis, 30-35 × 4-5; cystidiis fusoideis, primo furfuraceo-tunicatis, 50-55 × 9-10, dein granuloso-asperulis, 5-6 μ. latis; hyphis subhymenialibus 2 1/2-4 μ. latis. 749

Hab. ad ramos corticatos pr. Blumenau Brasiliæ (Möller) et Rio de Janeiro (Glaziou). — Aspectu externo *Corticium Berkeleyi* et *C. diminuens* simulat, a quibus structura microscopica bene distincta.

3. **Peniophora globifera** Ell. et Ev. Americ. Natur. 1897, p. 340. — Effusa, tenuis, flexibilis, sicca fragilis, cinerea, non rimosa, dense adnata, margine primo pilis adpressis, sericeis albidis sed mox evanescentibus vestito; cystidiis primo globosis, mox in processus asperos lanceolatos prolongatis, 40-70 × 8-10, hyalinis, numerosissimis; sporis minutis, globosis, 3 μ. diam. 650

Hab. in cortice Abietis in Canada (Macoun.).

4. **Peniophora citrina** P. Henn. Hedw. 1897, p. 192. — Subcoriacea, effusa, omnino resupinata, citrina, subvelutina, rimosa, ambitu nuda; sporis subglobosis v. late ellipsoideis, levibus, hyalinis v. subflavescentibus, 7-8 μ; setis pallide flavis, 2-3 μ. crassis. 751

Hab. ad ramos truncorum in prov. St. Catharina Brasiliæ (Ule).

5. **Peniophora occidentalis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 277. — Effusa, 4-6 cm. longa lataque, margine plus minusve reflexo ac strigoso-tomentoso, sordide alba, azonata; hymenio pallide lilacino, marcescente, farinoso; sporis ellipticis 1-2-nucleatis, 12-15 × 5-7; cystidiis gracilibus, rugulosis, subacutis, 75-100 × 13-16. 652

Hab. ad corticem arborum dejectarum in America boreali.

6. **Peniophora Schweinitzii** Sacc. et Syd. Sic nominanda est *Peniophora lilacina* (Schw.) Mass., Sacc. Syll. XI, p. 129 ob homonymam *P. lilacinam* (B. et Br.) Cke., Sacc. Syll. VI, p. 672.

CONIOPHORA DC. — Syll. VI, p. 647, IX, p. 241, XI, p. 129.

1. **Coniophora Betulæ** Karst. Hedw. 1896, p. 174. — Effusa, tenuis, indeterminata, tomentosa, ambitu subsimilari, sulphureo-spadicea; 653

sporis ellipsoideis, uniguttulatis, flavis, levibus, 10-12 × 6-8; hyphis teneris, fragilibus, hyalinis, 2-3 μ. crassis.

Hab. in cortice Betulæ pr. Mustiala Fenniæ.

2. **Coniophora subochracea** Peck, 50 Rep. p. 114. — Effusa, membranacea, subiculo filamentis arachnoideis albidis composito; hymenio viridulo-ochraceo, levi v. minute papilloso, demum rimoso et tunc subiculum matricemque ostendente; sporis copiosis, late ellipsoideis, coloratis, 6 × 4. 754

Hab. in lignis et corticibus putrescentibus in umbrosis, humidis, Menands Amer. bor.

PRILLIEUXIA Sacc. et Syd., *Karstenia* Britz. Hymen. Kunde III, 1897, p. 18, nec Fr. (Etym. a cl. mycologo et phytopathologo gallico E. Prillieux). — Sporæ aculeatæ v. angulosæ, luteæ v. brunneæ, cetera ut in genere *Coniophora*.

1. **Prillieuxia faginea** (Britz.) Sacc. et Syd., *Karstenia* Britz. l. c. f. 104. — Carnoso-membranacea; hymenio brunneo, toroso; margine brunneolo-albo, carnoso-fibroso; sporis aculeatis, brunneo-luteis, $7^1/_2$-9 × 6-$6^1/_2$, in cumulo violaceo brunneis. 755

Hab. ad lignum vetustum fagineum in Bavaria.

2. **Prillieuxia pinophila** (Britz.) Sacc. et Syd., *Karstenia* Britz. l. c. fig. 105. — Hymenio luteolo v. brunneo-luteolo, furfuraceo; margine albo, albido-piloso; sporis angulosis, 8 × 6, brunneis. 756

Hab. ad truncos vetustos Abietis excelsæ in Bavaria.

HYPOCHNUS Fries. — Syll. VI, p. 653, IX, p. 242, XI, p. 130.

1. **Hypochnus capnoides** Bres. Hedw. 1896, p. (62). — Effusus, adnatus, mollis, tomentosus, subpulverulento-granulosus, fumoso-umbrinus, ambitu pallidiore, canescente; sporis sphæroideis, luteo-fuscis, aculeatis, 6-7 × 6; basidiis clavatis, 35-40 × 6-8; hyphis subhyalinis vel rarius luteolis, nodoso-septatis, 3-6 μ. latis. 757

Hab. in culmis Phragmitis com., Berlin Germaniæ (Sydow).

2. **Hypochnus microsporus** Karst. Hedw. 1896, p. 174. — Effusus, tenuis, adnatus, tomentoso-submembranaceus, mollis, immarginatus, argillaceo-vel ferruginescente-cinnamomeus, ambitu subtusque byssinus albicans, papillis hinc inde conspersus; sporis sphæroideis, minute aculeolatis, subfuligineo-hyalinis, 4-6 μ. diam.; basidiis clavatis, 6-9 μ. crassis; hyphis ramosis, articulatis, unilateraliter nodulosis, 4-7 μ. crassis. 758

Hab. supra corticem Alni incanæ pr. Mustiala Fenniæ.

3. **Hypochnus Sacchari** Speg. Rev. Agr. y Veter. La Plata, 1896, p. 227. — Superficialis, plus minusve late effusus, 1-10 cm. diam., immarginatus, tenuiter ex arachnoideo membranaceus, albus vel vix subroseus, ex hyphis tenuibus dense ramuloso-intertextis (4-5 μ. crass.) septulatis hyalinis efformatus, hymenio subvelutino; basidiis obclavulatis, 20-35 × 5-8, antice acute attenuatis, medio subcoarctatis, postice rotundato-obtusatis, continuis, simplicibus, rarius bifidis, monosporis, hyalinis; sporis ovatis, 10-12 × 4-5, hyalinis, antice obtuse rotundatis, postice sæpius valde acutatis, continuis, levibus, acrogenis. 759

Hab. in foliis apicalibus adhuc convolutis languidis Sacchari officinarum prov. Tucuman, Argentina.

4. **Hypochnus serus** (Pers.) Fr.-Syll. VI, p. 656. — Var. **sphærincola** Karst. Hedw. 1896, p. 45. — Effusus vel ovalis, ceraceus, laxe adnatus, tenuis, rugosus, albidus, ambitu similari; sporis sphæroideo-ellipsoideis, uniguttulatis, 5-6 × 3-4; hyphis ramosis, articulatis, 2 μ. crassis. 760

Hab. supra Cucurbitariam Caraganæ, Mustiala Fenniæ.

5. **Hypochnus obscuratus** Karst. Hedw. 1896, p. 46. — Effusus, floccoso-membranaceus, indeterminatus, tenuis, facile secedens, griseo-fumosus, subinde papillis minimis obsitus, ambitu similari; sporis sphæroideis, aculeolatis, flavescentibus, 7-10 μ.; hyphis ramosis, nodoso-articulatis, plus minus flavescentibus, 4-7 μ. crassis. 761

Hab. supra corticem vetustum Tiliæ in agro Mustialensi in Fennia.

6. **Hypochnus andinus** Pat. Bull. Boiss. 1895, p. 58. — Terrestris latissime effusus, tenuis, mucedineus, albidus, contextu subnullo; basidiis glomeratis, claviformibus, hyalinis, 25 × 10, 4-sterigmaticis; cystidiis sparsis, hyalinis, teretibus, apice obtusis vel acuminatis, tenuiter tunicatis, 55-60 × 8-12; sporis hyalinis, levibus, globosis, 6-7 μ. diam. 762

Hab. ad terram in Æquatoria (v. Lagerheim). — *Corticio epigæo* Ellis affinis.

7. **Hypochnus Euphorbiæ** Pat. Bull. Boiss. 1895, p. 58. — Effusus, tenuis, arachnoideus vel submembranaceus, albido-ochraceus; hyphis primariis, hyalinis, enodosis, $1\,^1/_2$-$2\,^1/_2$ μ. crassis; hyphis fertilibus ramosis, fasciculatis; cystidiis cylindraceis, hyalinis, crassiuscule tunicatis, subtorulosis, simplicibus, 33-40 × 4-5; sporis ovoideo-globosis, hyalinis, levibus. 763

Hab. ad truncos siccos Euphorbiæ in Æquatoria (v. Lagerheim).

8. **Hypochnus elæodes** Bres. Atti R. Acc. Sc. Lett. ed Arti degli Agiati, 3 ser. III, fasc. 1-2, 1897, p. 115. — Effusus, e flavo-viridi olivaceo-tabacinus, margine zona vivide olivacea fere semper permanente cinctus; mycelio brunneo intra lignum vel corticem serpente; hymenio e levi dense granuloso; sporis subgloboso-angulatis, laxe aculeatis, luteis, 7-9 × 6-9; basidiis clavatis, 30-35 × 8-10; hyphis basidiophoris stramineis, cylindraceis, regularibus, $2\,^1/_2$–$3\,^1/_2$ μ.; hyphis contextus luteis, septato-nodosis v. stramineis, similaribus vel rarius hic inde inflatis ibique 4-7 μ. latis. 764

Hab. ad corticem et ligna Betulæ etc. in Hungaria (Kmet).

9. **Hypochnus fulvo-cinctus** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati, 3 ser. III, fasc. 1-2, 1897, p. 116. — Effusus, olivaceo-umbrinus, zona fulva cinctus; mycelio tomentoso, fulvo hymenio olivaceo-umbrino, papilloso; sporis luteis, subgloboso-angulatis, echinulatis, 7-9 × 7-8; basidiis clavatis, 45-50 × 7-9; hyphis cylindraceis, regularibus, septato-nodosis, $2\,^1/_2$-$3\,^1/_2$ μ. 765

Hab. ad corticem arborum in Hungaria (Kmet). — *H. elæodi* valde affinis, a quo præcipue strato infero myceliali fulvo distinguitur.

10. **Hypochnus incarnatus** (P. Henn.) Sacc. et Syd. *Tomentella incarnata* P. Henn. in Schrift. des Naturwissensch. Ver. für Schleswig-Holstein. Bot. XI, Heft I, p. 102. — Hymenio late effuso, tenui membranaceo, byssino, velutino, pallide incarnato; hyphis septatis, ramosis, hyalinis, levibus, 5-7 μ. crassis; basidiis clavatis, 2-3-guttulatis, 15-19 × 6-7, tristerigmaticis; sterigmatibus curvulis, 4 μ. longis; sporis globosis, $4\,^1/_2$-6 μ., episporio brunneolo, aculeato-asperato. 766

Hab. in ramulis ecorticatis pr. Friedrichsruhe Germaniæ (P. Hennings).

11. **Hypochnus lateritius** (Pat.) Sacc, et Syd. *Tomentella lateritia* Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 63. — Tenuissimus, late effusus, mucedineus, rubro-lateritius, non granulosus, arcte adnatus, immarginatus; hyphis sterilibus fere hyalinis, vix sub lente fuscis, septatis, nodosis ramosisque, 4-6 μ. latis; hyphis fertilibus erectis, brevibus, ramosis, sæpe indumento granuloso, nitido obductis; basidiis hyalinis, clavatis, 5-7 μ. latis, 4 sterigmaticis; cystidiis nullis; sporis pallide brunneis, globoso-angulosis, echinatis, 6-8 μ. diam. 767

Hab. parasiticus in superficie Hypochni longispori Pat. in ligno adusto Quercus in Tunisia.

12. **Hypochnus lilacino-roseus** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 62. — Effusus, orbicularis, submembranaceus, margine fimbriato; hymenio sub lente pruinoso, pallide roseo-lilacino; basidiis sparsis, subflexuosis, 30–58 × 6–7; cellulis sterilibus denticulato-torulosis, non incrassatis; cystidiis nullis; sporis hyalinis, ovoideis, 8 × 5 μ. 768

Hab. in ligno denudato Quercus Suberis in Tunisia.

13. **Hypochnus rubiginosus** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati, 3 ser. III, fasc. 1-2, 1897, p. 116. — Effusus, luride ferrugineo-fulvus, tomentosus; sporis subgloboso-angulatis, breviter et laxe aculeatis, 7-9 × 7-8, luteis; basidiis clavatis, 35-40 × 7-10; hyphis basidiophoris tenuibus, sæpe hinc inde inflatis, 2-6 μ.; hyphis contextus luteis, regularibus, cylindraceis, septato-nodosis, 3-5 μ. 769

Hab. ad acus Juniperi et folia Quercus in Hungaria (Kmet). — Colore *H. ferrugineo* simillimus, at structura et sporis satis diversus.

14. **Hypochnus Suberis** (Pat.) Sacc. et Syd. *Tomentella Suberis* Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 62. — Tenuis, resupinatus, submembranaceus, effusus, fusco-brunneus, margine albido, floccoso-filamentoso, evanescente; hymenio subpulverulento, granuloso, papillis congestis, rotundis, fuscis obsito; trama ex hyphis dilute brunneis, 4-5 μ. latis, nodosis, ramosis, septatis contexta; hyphis fertilibus hyalinis, ramoso-intricatis in nodulos congestis; basidiis clavatis, 25-30 × 10, 4-sterigmaticis, protoplasmate oleoso repletis, distantibus, sterilibus immixtis; cystidiis nullis; sporis brunneis, 7-20 μ. latis, globoso-angulatis, spinulosis. 770

Hab. in ligno adusto Quercus Suberis in Tunisia. — *H. fusco* et *fuscello* affinis.

15. **Hypochnus niveus** Britz. Hymen. Kunde III, 1897, p. 18, fig. 119. — Membranaceus, tenuissimus, gracilis; hymenio niveo; margine fibroso. 771

Hab. ad lignum vetustum fagineum in Bavaria.

16. **Hypochnus atrovirens** Bres. Atti R. Acc. Sc. Lett. et Arti degli Agiati, 3 ser. III, fasc. 1-2, 1897, p. 116; *Hypochnus olivaceus* Fr. pr. p. — Effusus, totus atro-virens v. fusco-olivaceus, margine concolore, tomentoso; hymenio pruinato-furfuraceo; sporis fusco-olivaceis, globoso-angulatis, subtiliter et laxe aculeolatis, 7-9 × 7; basidiis clavatis; hyphis irregularibus, cylindraceis, hinc inde inflatis, septato-nodosis, 3-9 μ. latis. 772

Hab. ad ligna mucida arborum frondosarum in Hungaria (Kmet).

17. **Hypochnus sitnensis** Bres. Atti R. Acc. Lett. et Arti degli Agiati 773
ser. 3, III, fasc. 1-2, 1897, p. 115. — Late effusus, tomentosus, castaneo-fuscus, hymenio unito, submembranaceo, fumoso; sporis globoso-angulatis, luteo-fuscis, muricellatis, 9-11 × 9; basidiis clavatis, 70-80 × 9-10; hyphis basidiophoris hyalinis, cylindraceis, septatis, 4 μ. crassis; hyphis contextus luteis, regularibus, cylindraceis, septatis, sæpe nodosis.

Hab. in trunco putrido Fagi in Monte Sytno in Hungaria (Kmet). — Ab *Hypochnis ceteris* differt hymenio discolore, unito, submembranaceo.

18. **Hypochnus Hellebori** Rostr. Bot. Tidsskr. 1897, p. 43 (nomen!). 774

Hab. in rhizomate et parte infer. caulium Hellebori nigri in Dania.

MATRUCHOTIA Boul. — Syll. XI, p. 118.

1. **Matruchotia complens** Moell. Protobasid. p. 150. — Ab affini 775
Matruchotia variante præcipue basidiis 4-sporis, rarissime 2-sporis recedit.

Hab. ad truncos in Brasilia, ubi cl. Möller etiam *M. variantem* pluries observavit.

EXOBASIDIUM Wor. — Syll. VI, p. 664, IX, p. 244, XI, p. 130.

1. **Exobasidium Gaylussaciæ** P. Henn. Hedw. 1896, p. 52. — Re- 776
ceptaculo in foliis rarius in caulibus petiolisque, maculis irregularibus, effusis, plus minus bullatis, crassioribus, subcarnosis, fuscidulis v. atro-sanguineis, pruinosis; sporis cylindraceis, oblongis, utrinque obtusis, rectis v. curvulis, hyalinis, 7-8 × 1-1 $^1/_2$.

Hab. in foliis, caulibus petiolisque Gaylussaciæ spec. divers. Itaiahy Brasiliæ (Ule).

2. **Exobasidium japonicum** Shirai, Bot. Magazin. Tokyo, 1896, p. 52. 777
— Carnosum, viridulum, glabrum, dein e rubescente albidum, globosum, hypophyllum, interdum irregulare, folia deformans; hymenio subcuticulari; sporis oblongo-reniformibus, 14 $^1/_2$ × 4.

Hab. in foliis Rhododendri indici in Japonia.

3. **Exobasidium Camelliæ** Shirai, Bot. Magazin. Tokyo, 1896, p. 51, 778
fig. 1-3. — Primo epidermide tectum, dein eam rumpens, inflorescentiis infectis hypertrophicis; hymenio crasso, albo, continuo; sporis oblongo-obovatis, 14 $^1/_2$-17 × 7.

Hab. in inflorescentiis Camelliæ japonicæ in Japonia. —

Var. **gracilis** Shirai l. c. hymenio hypophyllo, interdum epiphyllo; sporis oblongis, leniter curvulis, $14^1/_2 \times 2^1/_2$-5. In foliis Camelliæ Sasanquæ in Japonia.

4. **Exobasidium pentasporium** Shirai, Bot. Magazin. Tokyo, 1896, p. 53, fig. 18-19. — Mycelio perenni; hymenio subepidermico, hypophyllo, contracto v. explanato; sporis plerumque $14^1/_2 \times 4$, oblongo-reniformibus. 779

Hab. in foliis Rhododendri indici in Japonia.

5. **Exobasidium hemisphæricum** Shirai, Bot. Magazin. Tokyo, 1896, p. 53, fig. 12-17. — Carnosum, extus compactum, intus spongiosum, niveum, primo piriforme, apice globulosum, basi angustatum, dein explanatum, hemisphæricum, 3 cm. v. ultra diam.; hymenio subcuticulari; sporis cylindraceis, rectis, 15-19 $\times 4^1/_2$. 780

Hab. ad paginam foliorum inferiorem Rhododendri Metternichii in Japonia.

6. **Exobasidium Giseckiæ** Allesch. Pilze Ostafr. p. 54. — Hymenio versiformi, albido-roseo, in utraque pagina foliorum et florum integumentum subinflatum formante; basidiis subclavatis, 4 sterigmatibus; sporis ellipsoideis, dein ovoideis, hyalinis, 6-9 × 4-5. 781

Hab. in foliis floribusque, quæ deformantur, Giseckiæ pharnacioidis in Africa trop. (Volkens).

7. **Exobasidium discoideum** Ell.-Sacc. Syll. VI, p. 665. — Var. **Horvathianum** Thomas in Forstl.-Naturw. Zeitschr. 1897, Heft 8 p. 305 cum fig. — Differt a typo sporis bicellularibus, abrupte curvatis, 13-14 × 3,2 (in typo 20 μ.) 782

Hab. in foliis Azaleae ponticae in Caucaso (Horvath).

8. **Exobasidium Leucothöes** P. Henn. Hedw. 1897, p. 191. — Effusum; foliis ramulisque infectis, longioribus proliferisque, violaceis, pruinosis, haud bullosis; sporis subfusoideis, utrinque obtusis, curvulis v. subrectis, hyalinis, intus minute guttulatis, 9-14 × 4-5. 783

Hab. ad ramos, qui deformantur, foliaque Leucothoës spec. St. Catharina Brasiliæ (Ule).

9. **Exobasidium patavinum** D. Sacc. Mycoth. Ital. n. 8. — Hypophyllum, album v. dilutissime cinereum, maculas inæquales 2-6 mm. latas, pellioulose-velutinas formans; basidiis crebre parallele stipatis, subcutaneo-erumpentibus, tereti-clavatis, utrinque obtusis, 20-30 × 7-8; sterigmatibus subquaternis, circularibus, curvulis, 6 × 1; sporis ellipsoideis, 8-10 × 5-6, hyalinis, faretis, basi minutissime apiculatis. 784

Hab. in pagina inferiore foliorum languidorum Ilicis Aqui-

foliis, quæ non deformantur, in horto botanico Patavino Italiæ bor.

AUREOBASIDIUM Viala et Boyer. — Syll. XI, p. 131.

1. **Aureobasidium Vitis** Viala et Boy.-Sacc. Syll. XI, p. 132. — Var. **album** Montem. Atti del R. Ist. Bot. della Univ. di Pavia, V, 1897, cum tab. — Pustulis interdum confluentibus, albidis; basidiis hyalinis, 6-7 μ. latis (in parte superiore), 13-22 μ. longis; sporis cylindraceis, 6-8 × 1 $^1/_2$-2. 785

Hab. in foliis et petiolis fructuum Vitis viniferæ in Istria. — Var. **tuberculatum** Mc Alp. Add. Fungi on the vine, Australia 1898, p. 16, t. III. A typo differt colore albido-brunneolo, pustulis non erumpentibus, sporis hyalinis, rectis 9 × 3, et hymenii basi plerumque tuberculari. — In baccis Vitis viniferæ var. *Muscat* etc., Victoria Australiæ.

CYPHELLA Fr. — Syll. VI, p. 667, IX, p. 245, XI, p. 132. — Cfr. Grev. XX, p. 9.

1. **Cyphella Reineckeana** P. Henn. Engl. bot. Jahrb. XXIII, 1896, p. 279. — Tenui-membranacea, subcylindraceo-campanulata v. subdigitaliformis, e vertice oblique porrecto pendula, nivea, subnitens, levis, margine integro; hymenio levi, concolori; basidiis clavatis; sporis subglobosis, hyalinis, 4-5 μ. 786

Hab. in truncis in insula Upolu Samoens. (Reinecke).

2. **Cyphella Cookei** Sacc. et Syd. *Cyphella filicicola* Cke. Grev. XIV. 1886, p. 129 nec B. et C. — Albida; cupulis subdiscoideis, concavis, 1 mm. latis, levibus, glabris, subtus marginali-affixis, latere altero incurvis, margine integro v. bicuspidato; sporis ellipticis, hyalinis, 12 × 4. 787

Hab. in fronde Hymenophylli spec., Nova Zelandia.

3. **Cyphella poriformis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 85. — Dense gregaria, subiculo pallido, villoso-byssino; cupulis sessilibus, membranaceis, concavis, cinereo-flavescentibus, extus villosis, margine ciliatis, involutis; hymenio levi, flavescente, circiter 0,3 mm. diam.; sporis subglobosis, hyalinis, levibus, 1-1 $^1/_2$ μ. 788

Hab. in vaginis foliorum Palmarum, Kamerun (Dusén).

4. **Cyphella rufo-brunnea** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 85. — Sparsa, membranacea, oblique cupuliformis, rufo-brunnea; cupula circ. 1 mm. alta, 0,5 mm. lata, 789

intus levi, extus subpilosa; stipite 0,5 mm. longo, 150 μ. crasso, basi bulbilloso, levi glabroque; sporis ellipsoideis, levibus, uniguttulatis, 5–7 × 3–4 1/2 μ. hyalinis.

Hab. ad cortices, Kamerun (Jungner).

5. **Cyphella disciformis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 85. — Gregaria, membranacea, centro stipitata, primo cupuliformis, dein orbiculariter discoidea, applanata v. convexula; cupula circiter 1 mm. diam., flavo-cervina, extus squamoso-villosa, margine ciliata, dein reflexa, sæpe incisa; stipite centrali, plus minus elongato, usque ad 5 mm. longo, plerumque brevissimo, squamoso-tomentuloso, obscuriore; sporis non visis. 790

Hab. ad culmos emortuos Penniseti, Kamerun (Jungner).

6. **Cyphella globosa** Pat. Bull. Soc. Mycol. de Fr. 1895, p. 209. — Minuta, 200-250 μ. diam., globosa, sessilis, alba, tenera, sparsa vel laxe gregaria, villosa, pilis molliusculis, simplicibus, acutis, hyalinis, undique granulosis, 50-60 × 4 dense vestita. 791

Hab. in foliis Filicis cujusdam in Æquatoria (v. Lagerheim).

7. **Cyphella Erica** Pat. Pull. Soc. Mycol. de Fr. 1895, p. 209. — Minuta, 1/3 mm. alta, sparsa vel subgregaria, sessilis, tenuissima, glabra, pallide glauco-ochracea, urceolato-globosa, margine contracto, albido, recto, elongato, compresso, integro, dein inciso; hymenio levi, pallidiore. 792

Hab. ad ligna vetusta in Æquatoria (v. Lagerheim).

8. **Cyphella reniformis** Pat. Ann. Jard. Buitenz. 1897, I. suppl. p. 115. — Mycelio epiphyllo, albo, himantioideo; cupulis sparsis v. gregariis, sessilibus, reniformibus, glabris, membranaceis, 1-2 1/2 mm. diam.; hymenio concavo, levi. 793

Hab. in foliis emortuis, Java (Massart).

9. **Cyphella subceracea** P. Henn. Hedw. 1897, p. 194. — Cupulis subceraceis, solitariis v. 2-5 aggregatis, ca. 1/2 mm. diam., cupulatis, vertice affixis, albis v. flavescentibus, margine involutis, pruinosis, intus levibus; sporis subglobosis, hyalinis, 3-4 794

Hab. ad ramos putrescentes pr. St. Catharina Brasiliæ (Ule).

10. **Cyphella Sydowii** Bres. in Sydow, Mycotheca Marchica n. 3706. — Cupulis concavis, sessilibus, sparsis, 2/3 mm. latis, intus villosis, fuscululo-griseis, margine albido; hymenio levi, albido; basidiis clavatis, 4-sterigmaticis, 36-40 × 9-10; sporis obovato-oblongis, hyalinis, 12-15 × 8; pilis cylindraceis, luteis, apice hyalino-granulato, 240-250 × 5-5,5. 795

Hab. in ramulis dejectis Genistæ tinctoriæ pr. Berolinum

Germaniæ (Sydow). — Aspectu externo videtur *Lachnella corticalis*. Cum *Solenia granulosa* Fckl. comparanda, an revera distincta sit.

11. **Cyphella Brayeræ** P. Henn. Pilze Ostafr. p. 55. — Cupulis membranaceis, solitariis, longe pedicellatis, cochleariformibus v. oblique cupulatis, hymenio levi, extus dense tomentosis, albis, 1-2 mm. diam., margine involuto; pedicello pubescente usque ad 3 mm. longo; sporis subglobosis v. ovoideis, basi apiculatis, intus subgranulatis, hyalino-subfuscescentibus, 6-8 μ.; basidiis subclavatis, 30 × 8 subfuscis; pilis cupulæ circiter 25 × 6 μ. 796

Hab. in petiolis Brayerae anthelminticae, Africa trop. (Volkens).

12. **Cyphella usambarensis** P. Henn. Pilze Ostafr. p. 55. — Cupulis solitariis v. subgregariis, minutissimis, punctiformibus, pallidis, primo subglobosis, dein cupulatis, margine involutis, extus albo-villosis v. griseo-pruinosis, substipitatis, hymenio glabro, pallido; basidiis clavatis, flavescentibus; sporis ellipsoideis, uniguttulatis subflavescentibus, levibus, 7–9 × 5–6. 797

Hab. ad ramos putres in Africa trop. (Holst). — *C. villosæ* Pers. affinis.

13. **Cyphella variolosa** Kalchbr.-Sacc. Syll. VI, p. 671. — Var. **Volkensii** P. Henn. Pilze Ostafr. p. 55. — Cupulis dense gregariis, membranaceis, primo subglobosis, demum hemisphæricis, stipitatis v. subsessilibus, orbicularibus vel mutua pressione undulato-angulatis, 0,5-2 mm. diam., extus squamuloso-tomentosulis, flavo-brunneis, margine integris, hymenio concolore, levi glabroque; sporis ellipsoideis v. ovoideis, granulosis, flavidis v. flavo-fuscis 6-9 × $4^1/_2$–6; basidiis clavatis; pilis cupulæ circ. 30 μ. longis, 4-6 μ. crassis. 798

Hab. in cortice Erythrinae tomentosae in Africa trop. (Volkens).

14. **Cyphella punctoidea** P. Henn. Hedw. 1897, p. 194. — Cupulis gregariis, minutissimis, ca. 180-220 μ. diam., albis, dense tomentosis, setis rigidis 4-5 μ. crassis intus granulosis apice capituliformibus 6-8 μ. incrassatis, tectis; sporis globosis, levibus, hyalino-flavescentibus, 3-$3^1/_2$ μ 799

Hab. in pagina superiore foliorum coriaceorum pr. St. Catharina Brasiliæ (Ule). — *Cyphellæ villosæ* (Pers.) Karst. affinis.

15. **Cyphella Saccardoi** Syd. Sic nominanda est *Cyphella Ravenelii* Sacc. in Syll. VI, p. 672 (syn. *Cyphella fulva* B. et Rav. North

Am. Fg. n. 287, nec B. et Br. Rav. fasc. IV, p. 16), quum exstet anterior C. *Ravenelii* B. et Rav., Sacc. Syll. VI, p. 673.

Tulasnellaceæ Juel.

Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 21, extr.

Gymnocarpæ; basidia globosa, unicellularia, sterigmatibus carentia; sporæ non deciduæ, in basidio germinantes, conidia gignentes.

Clavis analytica generum

Tulasnella. Fungi plani, subgelatinosi.
Muciporus. Fungi plani, foveati, spongiosi, hymenio evanido.

TULASNELLA Schroet. in Cohn, Kryptogamenflora Schles. Bd. III, p. 397, 1888. (Etym. a cl. mycologo Tulasne), *Prototremella* Pat. et *Pachysterigma* Johan-Olsen. — Fungus subgelatinosus, planus effusus, tenuis; basidia continua, sterigmata 4 usque 8 majuscula gerentia; sporæ et conidia globulosa vel fusiformia.

* Conidia globosa vel ovoidea.

1. **Tulasnella lilacina** Schroet. l. c. Sacc. Syll. VI, p. 625 sub *Corticium*.
2. **Tulasnella Tulasnei** (Pat.) Juel l. c. p. 21. *Prototremella Tulasnei* Pat. Journ. de bot. II, 1888, p. 267, Sacc. Syll. IX, p. 236.
3. **Tulasnella incarnata** (Johan-Olsen) Juel l. c. p. 22? *Corticium incarnatum* (*pinicola*) Tul. Ann. sc. nat. 5 sér. t. XV, p. 227, tab. X, fig. 3-5, non Fries; *Pachysterigma incarnatum* Johan-Olsen in Brefeld Untersuch. Heft VIII, 1889, p. 7, t. I, f. 1-2; *Corticium incarnatum* Bref. Sacc. Syll. IX, p. 235.
4. **Tulasnella fugax** (Joh.-Ols.) Juel l. c. p. 22. *Pachysterigma fugax* Joh.-Ols. l. c. p. 6, tab. I, fig. 3-4, *Corticium fugax* Bref. Sacc. Syll. IX, p. 236.

* Conidia fusiformia.

5. **Tulasnella rutilans** (Joh.-Ols.) Juel l. c. p. 22. *Pachysterigma rutilans* Joh.-Ols. l. c. p. 6, tab. I, fig. 5-7, *Corticium rutilans* Bref. Sacc. Syll. IX, p. 236.

6. **Tulasnella violacea** (Joh.-Ols. Juel l. c. p. 22. *Pachysterigma violaceum* Joh.-Ols. l. c. p. 6, tab. I, fig. 8-10; *Corticium violaceum* Bref. Sacc. Syll. IX, p. 236.

7. **Tulasnella caluspora** (Boud.) Juel l. c. p. 23. *Prototremella calospora* Boud. Journ. de Bot. 1896, p. 85, c. fig. — Receptaculo membranaceo, candicante, effuso, 0,5 mm. circiter spisso, maculas plagasve 2-8 cm. latas irregulares et ad marginem vix byssoideas formante, hymenio ceraceo albo-pruinoso glaucescente; basidiis brevibus extremitate filamentorum inflata formatis, sterigmatibus quaternis ovoideis, dein conicis crassis posteaque elongatis, flexuosis, ad apicem plus minusve attenuatis et sporam unicam gerentibus; sporis pro genere magnis, fusoideis sed sæpe flexuosis, achrois, intus granulis minutis numerosis et vacuolo unico aut 2-3 repletis, extremitatibus acutiusculis, sæpe germinationis initio 2-3-cornutis, 20-28 × 5-8. 801

Hab. ad tela putrida, Parisiis in Gallia.

MUCIPORUS Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 23. — Fungus planus dense foveatus, spongiosus; hyphæ subresistentes; hymenio evanido; conidia et sporæ ut in *Tulasnella*.

* Conidia ovoidea.

1. **Muciporus corticola** (Fr.) Juel, l. c. p. 23, fig. 16-45. *Polyporus corticola* Fr. Syst. myc. I, p. 384; *Poria corticola* Sacc. Syll. VI, p. 322. — forma *thelephorea* Juel, l. c.

* Conidia fusiformia.

2. **Muciporus deliquescens** Juel l. c. p. 24, fig. 1-15. — Decolorans vel pallide fulvus; hymenio gelatinoso, deliquescente; basidiis globosis, circiter 9 μ. diam., 4-sporis; conidiis leniter curvulis, sæpe bicellularibus, 20-22 × 3 ½. 807

Hab. supra corticem Populi tremulæ in Suecia.

Fam. 5. **Clavariaceæ** Corda.

SPARASSIS Fr. — Syll. VI, p. 690.

1. **Sparassis Herbstii** Peck Bull. Torr. Bot. Club. 1895, p. 207. — Ramosissima, 10-13 cm. alta, 13-16 cm. lata, albida v. cremeo- 802

lutea, uda, tenax; ramis numerosis, tenuibus, applanatis concrescentibus, supra dilatatis, spathulatis, plerumque concoloribus, raro apice lato indistincte et transverse subconcolori-zonatis; sporis subglobosis v. late ellipticis, 5 1/4-6 1/2 × 4-5 1/4.

Hab. ad terram, Amer. bor. — *S. spathulatæ* (Schw.) Fr. affinis.

CLAVARIA Vaill. — Syll. VI, p. 692, IX, p. 247, XI, p. 134, Cfr. Grev. XX, p. 10.

1. **Clavaria kewensis** Massee, Journ. of Bot, 1896, p. 153. — Gregaria, 13-16 cm. lata, basi crassa, ramis numerosis, subæqualibus, divergentibus, 4-7 cm. longis, sæpe compressis, fistulosis, ferrugineis, demum ochraceis, pruinosis, apicem versus in ramulos 2-4 breves partitis, axillis subglobosis, apicibus obtusis vel incisolaciniatis, laciniis 2–4 brevibus; sporis ellipticis, hyalinis, 5-6 × 3 1/2-4. 803

Hab. ad lignum putridum, Kew Britanniæ.

2. **Clavaria aculeata** Blonski, Wyniki. Posz. Floryst. 1890, p. 17. — Lignicola, ramosissima, tenella, roseo-albida, ramis teretibus, levibus, erectis, ramulis attenuatis mucronatisque undique aculeis concoloribus vel etiam saturatius coloratis dense ac regulariter obtectis; sporis albis. 804

Hab. ad truncos putridos in montibus Poloniæ.

3. **Clavaria obtusiuscula** Britz. Hymen. Kunde. III, 1897, p. 19, fig. 97. — Griseo-violacea; ramis brevibus, obtusis, 3-denticulatis, albidis v. violaceis; sporis 10-11 × 8, oblongo-rotundis uno apice angustis, in cumulo albis; sapore grato. 805

Hab. in silvis in Bavaria. — Circiter 4 cm. alta.

4. **Clavaria gigantula** Britz. Hymen. Kunde. III, 1897, p. 19, f. 98. — Irregulariter undulato-rugosa, albida, demum brunneola, clavæformis, simplex v. ramosa; stipite circiter 2 cm. alto; sporis 10-12 × 9-10 albis. 806

Hab. in silvis in Bavaria. — Circiter 11 cm. alta, 3 cm. lata.

5. **Clavaria Rieli** Boud. Bull. Soc. Mycol. de France, 1897, p. 13. t. II. *(Ramaria)*. — Magna, robusta, 10-12 cm. alta, ochraceo-rufescens; trunco 2 1/2-3 cm. lato, albido, deorsum incrassato, ramis satis numerosis, robustis, bis terve divisis, obtusis, sæpe ad extremitatem erosis, 1-1 1/2 cm. crassis, longitudinaliter et elegantes striatis, ochraceo-rufescentibus; carne alba non amara, sub hymenio citrina unde 807

ramis (in partibus erosis) lutescentibus; basidiis clavatis, elongatis, intus granulosis, 70-80 × 10, tetrasporis; cystidiis elongatis, filiformibus, intus granulosis; sporis majoribus, levibus, oblongo-undulatis, hilo lateraliter producto bene conspicuo, pallide ochraceis, intus granulosis rarius guttulosis, 16-18 × 5-7.

Hab. in fagetis et abiegnis mixtis in Gallia (Riel).

6. **Clavaria seminicola** P. Henn. Hedw. 1897, p. 195. — Basi fasciculata, subspathulata vel subulata compressa, rugulosa apice palmatifida vel acuta, flava 5-11 mm. longa; sporis subglobosis, levibus, hyalinis, $3\,^1/_2$-$4\,^1/_2$ μ. 808

Hab. in seminibus Euphorbiaceæ ignotæ pr. Blumenau Brasiliæ (Möller).

7. **Clavaria Wakkeri** Sacc. et Syd. *Clavaria gracillima* Wakk. De Ziekten van het Suikerriet of Java, Leiden 1898, p. 195, nec Peck. — Filiformis, solitaria vel 2-5 basi fasciculata, simplex, dilute ochracea, longitudine variabilis, 1-3 cm. longa, acutissima; basidiis simplicibus 4-sporis; hyphis repentibus albis; sporis hyalinis, ovoideis, utrinque acutis, 8 × 5. 809

Hab. in vaginis emortuis Sacchari officinarum in Java.

8. **Clavaria Mucronella** Bres. Hedw. 1896, p. 290. — Dense gregaria, clavulis liberis, subulatis, raro apice furcatis, albis, subpruinatis, filiformibus, $^1/_2$-1 mm. altis, basi tenuiter albo-fibrillosis; sporis hyalinis, obovatis, 4-6 × $2\,^1/_2$-4; basidiis clavatis, 4-sterigmaticis, 15-20 × 6-7. 810

Hab. ad ligna mucida pr. Blumenau Brasiliæ (Möller). — *Clavariæ Bresadolæ* Quél. valde affinis. Habitu *Mucronellam calvam* refert, a qua tamen defectu subiculi et sporis diversa.

9. **Clavaria Sydowii** Bres. Hedw. 1896, p. (61). — Cæspitosa, minima; cæspitulis 2-3 mm. altis, dilute carneis; clavis filiformibus, apice attenuatis, levibus, ubique summo apice excepto, fertilibus; sporis obovato-elongatis, hyalinis, 9-10 × 5-$5\,^1/_2$; basidiis clavatis, 24-26 × 6; hyphis 4 μ. latis. 811

Hab. ad ramulos Robiniæ Pseudocaciæ pr. Muskau in Germania (Sydow).

10. **Clavaria platyclada** Peck, Bull. Torr. Bot. Club. 1896, p. 419. — Cæspitosa, plus minus connata, simplex v. furcata, raro 1 vel 2 vel paucis irregularibus, solida, compressa, in basim albidam attenuata, lutea, ætate brunneola, intus alba, apice applanata, obtusa; sporis globosis, 5-$10\,^1/_2$ μ. latis. 812

Hab. in silvis, Maine Amer. bor. (Davis). — 8-10 1/2 cm. alta, 1/2-1 cm. lata, 2 mm. crassa. *Cl. fusiformi* proxima.

11. **Clavaria falcatula** P. Henn. Hedw. 1897, p. 195. — Simplex, 813
carnosa, subochracea, recta v. falcata, subulata, basi byssina, pallida, 3-5 mm. longa, 0,5-0,7 mm. crassa; sporis subglobosis, levibus, 3 1/2-4 μ., episporio dilute brunneo.

Hab. in caulibus herbarum putrescentibus pr. St. Catharina Brasiliæ (Ule).

12. **Clavaria microscopica** Sacc. et Malbr.-Sacc. Syll. VI, p. 727. — 814
Var. **Asphodeli** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 66. — Simplex, gregaria v. sparsa, perexigua, 1-2 mm. vix alta, 50-80 μ. crassa, apice acuta, medio subincrassata, deorsum in stipitem spurium attenuata, primo alba, dein rosella, stipite saturatius colorato; basidiis bisporis, claviformibus; cystidiis elongatis subfusiformibus, 20-25 × 6-8, numerosis; sporis levibus, hyalinis, ovoideis, 8-10 × 5.

Hab. in foliis putridis Asphodeli in Tunisia.

13. **Clavaria Schrœteri** P. Henn. in litt. Sic nominanda est *Clavaria compressa* Schroet., Sacc. Syll. VI, p. 694, quum exstet anterior *Cl. compressa* Berk.

14. **Clavaria filicina** Sacc. et Syd. Sic nominanda est *Clavaria cervina* Worth. G. Smith, Sacc. Syll. VI, p. 702, quum exstet præcedens *Cl. cervina* B. et C., Sacc. Syll. VI, p. 716.

15. **Clavaria Saccardoi** Syd. Sic nominanda est *Clavaria Kalchbrenneri* Sacc. in Syll. VI, p. 710, 1888 (syn. *Cl. dichotoma* Kalchbr.), quum exstet anterior *Cl. Kalchbrenneri* Muell. 1882.

16. **Clavaria Karstenii** Sacc. et Syd. Sic nominanda est *Clavaria divaricata* Karst., Sacc. Syll. XI, p. 135, quum exstet anterior *Cl. divaricata* Peck, Sacc. Syll. IX, p. 249.

17. **Clavaria javanica** Sacc. et Syd. Sic est nominanda *C. coronata* Zipp. (1844), Syll. VI, p. 715, extante anteriore *C. coronata* Schw. (1831).

PHÆOCLAVULINA Brinkm. Jahresber. d. Westf. Prov. Ver. f. Wiss. u. Kunst. Bot. Sect. 1896-97, pag. 197 (Etym. *phaios* fuscus et *Clavulina*). — Carnosa, plerumque fragilis, plus minus ramosa; hymenophorum glabrum v. subrugosum, a parte sterili non distincte separatum; basidia conferta, bispora; sporæ ellipticæ, ovoideæ v. globosæ, ochraceæ v. flavidæ.

1. **Phæoclavulina macrospora** Brinkm. l. c. p. 198. — 3-6 cm. alta; 815
trunco carnoso; ramis crassis, irregulariter ramulosis, erectis, apice

obtusis v. 2-4 truncatis, glabris v. in longitudine rugosis, sordide ochraceis, subolivaceis, ob sporas pruinosis; carne sordide albida, tactu pallide rubescente v. viridi-nigrescente; basidiis sterigmatibus duobus crassis acuminatis; sporis ellipticis, 14–18 × 5-7, flavidis, granulosis.

Hab. in pratis inter Juniperos in terra calcarea, Guestfalia Germaniæ.

CALOCERA Fr. — Syll. VI, p. 732, IX, p. 251.

1. **Calocera Cavaræ** Bres. apud Cavara Contrib. allo studio del Marciume p. 14 (1896). — Dense gregaria vel subcæspitosa, radicata, subtuberculata, *candida;* clavulis inferne crassioribus ut plurimum palmato-digitatis, vel ramis parce furcatis, 2 cm. circiter altis, basi stipitiformi, 5-6 mm. longa, 3-4 mm. crassa præditis; ramis 3-5 teretibus, apicibus bi-trifidis; basidiis cylindraceo-subclavatis, 3-4 mm. latis, apice furcatis, lobulis 1-sterigmaticis; sporis cylindraceo-curvulis, hyalinis, demum 1-septatis, 10–12 × 4–4 $^1/_2$, nonnullis majoribus 15 × 5 μ. commixtis. 816

Hab. ad truncos Abietis pectinatæ in silva Vallombrosa Italiæ (Fr. Cavara). — Inter *Cal. palmatam* et *Cal. viscosam* media.

LACHNOCLADIUM Lév. — Syll. VI, p. 738, IX, p. 252, XI, p. 139.

1. **Lachnocladium samoënse** P. Henn. Engl. Jahrb. XXIII, 1896, p. 279. — Coriaceum, tenax, ramosissimum, pallide ochraceum, pruinoso-subtomentosum, conferte cæspitosum, 6-12 cm. altum; stipitibus numerosis, brevibus v. confluentibus, ramis repetito dichotomis v. pluripartitis, subteretibus, axillis nec compressis nec arcuatis, plerumque substrictis v. flexuosis, ramulis apicibus subulatis, nudis, obscurioribus. 817

Hab. ad ramos in insul. samoëns. (Reinecke). — *L. Lauterbachii* P. Henn. affine.

2. **Lachnocladium strictum** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 86. — Strictum, ramosissimum, flavum, usque ad 10 cm. longum; stipitibus liberis v. cæspitoso-connatis, subteretibus, 1-2 cm. altis, 3-5 mm. crassis, basi subincrassatis, albo-tomentosis, e mycelio membranaceo pallido oriundis; ramis repetito dichotomis, strictis, exsertis, axillis nec arcuatis nec sulcatis, vix compressis, farctis, apicibus acutis, subcristatis v. longe subu- 818

latis; sporis ellipsoideis, subhyalinis v. flavescentibus, 1-guttulatis, 6-7 ≈ $4^1/_2$-$5^1/_2$.

Hab. ad ligna emortua, Kamerun (ZENKER et STAUDT).

3. **Lachnocladium Dusenii** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 86. — Stipitatum, ramossimum, coriaceum, molle; trunco basi bulboso, usque ad 5 mm. longo, 2 mm. crasso, compresso, repetito ramoso, subpalmato; ramis late compressis, subtomentosis, griseo-violaceis, apicibus dichotomis, compressis, subspathulatis, obtusis v. subulatis, pallidis, pruinosis; sporis subglobosis, hyalinis, 4-5 μ. (?). 819

Hab. ad terram arenosam, Kamerun (DUSÉN). — *Thelephoram palmatam* in mentem revocat.

4. **Lachnocladium quangense** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 86. — Coriaceum, tenax, pallidum, tomentosulum, ca. 9 cm. altum, 5-8 cm. latum; stipitibus basi simplicibus v. ramosis, usque ad 3 cm. long., 5 mm. crass., ramis axillis compressis latioribusque, ramulis repetito dichotomis, apicibus plerumque multipartitis, subulatis, nudis, pallide flavis; sporis ovoideis, levibus, flavescentibus, 6-7 ≈ 5-6. 820

Hab. in silvis ad terram, Angola et Kamerun.

5. **Lachnocladium galaxauroides** P. Henn. Pilze Ostafr. p. 55. — Dense cæspitosum, erectum, plus minus ramosum, subspongiosum, farctum, subfragile, alutaceum, setuloso-tomentosum, 2-5 cm. altum; stipite simplici v. ramoso e mycelio membranaceo, albo oriundo, ramis dichotomis, tripartitis v. irregulariter partitis, teretibus, crassis, raro compressis, subrugosis, apice subulatis v. furcatis, obtusis v. acutiusculis, setulis ramosis. 821

Hab. in areis ustis in Africa tropica (HOLST).

6. **Lachnocladium pteruloides** P. Henn. Pilze Ostafr. p. 56. — Dense cæspitosum, confluens, subpulvinatum, erectum, pallide ochraceum, setosum, 2-4 cm. altum; stipitibus ramosissimis, fastigiatis, ramis repetite dichotomis v. fasciculatis, axillis late compressis, strictis v. divergentibus, tenacellis; ramulis apice subulatis, fastigiatis v. cristatis; sporis subellipsoideis, levibus, fuscidulis, 5-6 ≈ $3^1/_2$-$4^1/_2$; mycelio albo, membranaceo. 822

Hab. sub foliis putridis in Africa tropica (HOLST). — *L. semivestito* B. et C. affine.

7. **Lachnocladium palmatifidum** P. Henn. Engl. Jahrb. XXIII, p. 544. — Album, 3-6 cm. altum, erectum, coriaceum, tenax; stipitibus ramosis v. basi connexis, subteretibus v. compressis, tomentosis; 823

ramis in axillis late compressis, subflabellatis, palmato-ramosis, ramulis repetito-dichotomis v. palmatifidis, apice subulato-elongatis, squarrosis, $^1/_2$-$1\,^1/_2$ cm. longis; sporis ellipsoideis, hyalino-subflavescentibus, 6-$7\,^1/_2$ ≈ $3\,^1/_2$-$4\,^1/_2$, levibus.

Hab. inter folia decidua putrida in Camerunia (Zenker).

8. **Lachnocladium victoriense** P. Henn. Engl. Jahrb. XXIII, p. 543. 824
— Fusco-violaceum, 5-6 cm. altum; stipite brevi, $^1/_2$-1 cm. longo, incrassato, irregulariter ramoso; ramis sæpe confluentibus, teretibus v. compressis; ramulis repetito dichotomis, levibus, haud compressis, divergentibus, apice subulatis; sporis ellipsoideis v. subovoideis, basi oblique apiculatis, 7-8 ≈ $3\,^1/_2$-4, episporio fuscidulo, levi.

Hab. ad terram in Camerunia (Preuss).

9. **Lachnocladium asterosetosum** P. Henn. Hedw. 1897, p. 196. — 825
— Pallide alutaceum, tomentosum; stipite farcto tereti, ca. 1-2 cm. longo, 1-$1\,^1/_2$ mm. crasso, repetite ramoso, ramis subteretibus, axillis compressis, divergentibus, ramulis apice furcatis vel subulatis, setulis asteroideis, ochraceis tectis; sporis subglobosis, levibus, hyalino-fuscidulis, 3-4 μ.

Hab. ad terram pr. Blumenau Brasiliæ (Ule).

10. **Lachnocladium Moelleri** P. Henn. Hedw. 1897, p. 196. — Tenuiter 826
coriaceum, late compressum, cretaceum, trunco simplici interdum elongato, compresso, farcto, ramis repetite di-vel trichotomis, planis, levibus, ramulis apice longe subulatis vel palmatifidis; sporis ellipsoideis vel ovoideis, hyalinis, dense aculeato-asperatis, 7-9 ≈ 5-6.

Hab. ad terram pr. Blumenau Brasiliæ (Möller). — *L. leucocreati* Pat. affine, sed verisimiliter distinctum.

11. **Lachnocladium olivaceum** P. Henn. Hedw. 1897, p. 196. — Oli- 827
vaceum, 6-10 cm. altum; stipite compresso, 2-3 cm. longo, 2-3 mm. crasso, ramis dichotomis substrictis, setulosis, ramulis apice subulatis vel bifidis; sporis ellipsoideis vel ovoideis, echinato-asperatis, ochraceo-fuscis, basi apiculatis, 9-12 ≈ 6-8.

Hab. ad terram pluribus locis in Brasilia (Schwacke, Ule).

12. **Lachnocladium Schwackei** P. Henn. Hedw. 1897, p. 196. — Te- 828
nuiter coriaceum, late compressum, ca. 6-7 cm. altum, cretaceum, trunco simplici, furcato, ramis repetite di-vel trichotomis, axillis late compressis, levibus, ramulis apice subulatis vel furcatis; sporis subglobosis, levibus, hyalino-flavescentibus, 4-5 μ.

Hab. ad terram pr. Rio de Janeiro Brasiliæ (Schwacke). — *Lachnocladio Mölleri* P. Henn. habitu externo valde affine, sed notis microscopicis diversum.

PTERULA Fr. — Syll. VI, p. 740, IX, p. 255, XI, p. 140.

1. **Pterula arbuscula** Bres. Hedw. 1896, p. 291. — Stipite subcompresso, rufo-badio, basi 1 mm. lato, 2 cm. longo, jam a basi ramoso; ramis filiformibus, glabris, paucis, distantibus, rufidulis, in ramulos bifidos vel alternatim dispositos divisis; hymenio amphigeno; basidiis clavatis, minimis; sporis luteolis, obovatis, 10-12 × 7. 829

   Hab. ad cortices pr. Blumenau Brasiliæ (Möller). — Tota planta 3 cm. alta, 2 cm. lata; ramuli laxi, distantes, apice steriles.

2. **Pterula incarnata** Pat. Bull. Boiss. 1895, p. 58. — Pusilla, 3-5 mm. alta, sparsa vel cæspitosa, rigida, tenax, erecta, pallide incarnata, ramosa; ramis patentibus, simplicibus, pallidioribus, undique basidiferis; sporis non visis. 830

   Hab. ad fragmenta lignea dejecta in Æquatoria (v. Lagerheim).

3. **Pterula subplumosa** P. Henn. Hedw. 1897, p. 197. — Minuta, flavo-carnea, sparsa, ca. 1 cm. alta, usque ad 1 cm. diametro; stipite tereti, erecto ochraceo-tomentoso, squarroso-ramoso; ramis repetite dichotomis, teretibus, cartilagineis, levibus, apice subulatis; basidiis clavatis; sporis globosis, hyalinis, $3^1/_2$ μ. 831

   Hab. ad cortices pr. Blumenau Brasiliæ (Ule).

4. **Pterula subsimplex** P. Henn. Hedw. 1897, p. 197. — Flavo-incarnata, cartilaginea, basi fasciculato-ramosa, ramis filiformibus, subrigidis, simplicibus, rectis vel flexuosis, apice subulatis, subpruinosis 1-$1^1/_2$ cm. longis, 130-200 μ. crassis; sporis globosis, levibus, hyalinis, 3-$3^1/_2$ μ. 832

   Hab. ad truncos in silva pr. Blumenau Brasiliæ (Ule). — *Pterulæ simplici* Sacc. et Paol. videtur affinis. — Tenuissima gracillima, tantum basi ramosa ideoque *Mucronellæ* similis.

5. **Pterula togoensis** P. Henn. Engl. Jahrb. XXIII, p. 543. — Cartilaginea, rufo-brunnea, repetito ramosa, 5 cm. alta, ramis compressis, ramulis fasciculatis, strictis, tenuibus, filiformibus, nudis, apicibus subulatis, usque ad 2 cm. longis; sporis haud conspicuis. 833

   Hab. in truncis putridis in Togo Afr. occ. (Baumann). — *Pt. arundinaceæ* et *Pt. subaquaticæ* Bres. affinis.

6. **Pterula Uleana** P. Henn. Hedw. 1897, p. 197. — Cæspitosa, cartilaginea, ramosissima, sicco rufo-brunnea, erecta; stipite subtereti, repetite di-vel trichotomo, ramis filiformibus, strictis, apice subulatis v. palmatifidis; sporis ellipsoideis, levibus, hyalino-flavescentibus, 4-$4^1/_2$ × $3^1/_2$-4. 834

   Hab. ad truncos putrescentes pr. St. Catharina Brasiliæ (Ule). — *Pterulæ plumosæ* (Schw.) affinis, sed sporis diversa.

TYPHULA Pers. — Syll. VI, p. 743, IX, p. 255, XI, p. 141.

1. **Typhula Uleana** P. Henn. Hedw. 1897, p. 195. — Simplex, filiformis, subulata, pallida v. subbrunnea, tomentosula, teres, 1-2 cm. longa, $^1/_2$ mm. crassa, apice acute subulata, basi vix incrassata; basidiis 10-14 × 6-7; sporis subglobosis, hyalinis, 4-4 $^1/_2$ μ. 835

Hab. ad folia decidua pr. St. Catharina Brasiliæ (Ule).

2. **Typhula tenerrima** P. Henn. Hedw. 1897, p. 195. — Simplex, tenui-filiformis, glabra, sicca rufobrunnea, 1 $^1/_2$-2 cm. longa, 35-50 μ. crassa, teres, apice subulata, basi subsclerotioidea, incrassata, fusca; sporis subglobosis, hyalinis, 3 $^1/_2$-4 μ.; basidiis clavatis, 5-6 × 4 $^1/_2$. 836

Hab. ad folia decidua pr. St. Catharina Brasiliæ (Ule).

3. **Typhula lividula** Roll. Bull. Soc. Myc. 1898, p. 83, t. IX, f. 2. — Simplex, primum olivacea, dein siccitate canescens, 2-3 mm. alta; clavula oblonga v. piriformi; stipite filiformi, pallidiore, glabro, inferne dilatato v. bulbiformi, roseo; sporis hyalinis, ovato-oblongis, 8 × 3-3,5. 837

Hab. ad caules Hellebori lividi putrescentes, Valle Tavignano fluminis prope Corte in Corsica.

4. **Typhula Traillii** Berk. et Cke. — Syll. VI, p. 751 (diagnosis incompleta!). — Clavula cylindraceo-subfusiformi, ubique fertili, sæpe falcata, alba, exsiccando lutea, sensim in stipitem abeunte, 4-5 mm. longa, $^1/_4$ mm. circiter crassa; stipite filiformi, concolore, glabro, sub microscopio hinc inde aliqua setula cuspidata **septata** prædito, 5-7 mm. longo; sporis oblongo-obovatis, 5-6 × 2 $^1/_2$; basidiis clavatis, 4-sporis, 15-20 × 6-7 (ex Brosadola in Hedw. 1896, p. 291).

Hab. ad ramenta pr. Blumenau Brasiliæ (Moeller).

PISTILLARIA Fr. — Syll. VI, p. 752, IX. p. 255, XI, p. 141.

1. **Pistillaria Penniseti** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 86. — Gregaria, filiformis, simplex v. ramosa, albida, 1-2 cm. longa, basi subbulbosa, levi; ramis filiformibus, sparsis, apicibus subulatis; sporis ovoideis, hyalinis, 6-7 × 4-5 basidiis clavatis, 5-6 μ. crassis, 838

Hab. in foliis emortuis Penniseti, Kamerun (Jungner). — *P. Helenæ* Quél. affinis.

2. **Pistillaria Carestiæ** (Ces.) Sacc. Malpighia XI, 1897, p. 17 extr. *Typhula* Ces. herb. — Minuta, æqualiter cylindracea, obtusa, cæspitosa, carnosa, alba, lutina, $^1/_2$-1 mm. alta; basidiis clavato-cylindra- 839

ceis, 15-20 × 4, 2-4-sterigmaticis; sporis ovato-oblongis, 9-10 × 3-3 1/2, granulosis.

Hab. in ramis siccis Syringæ vulgaris in Italia boreali.

BAUMANNIELLA P. Henn. Engl. Jahrb. XXIII, p. 543 (Etym. a cl. botanico G. Baumann). — Fungi membranaceo-subgelatinosi, capitati; capitulum subglobosum v. ovoideo-clavatum, vesiculoso-inflatum, cavum, tenue, hymenio ubique tectum; stipes gracilis; basidia monospora, cystidiis superantibus; sporæ subglobosæ, fuscidulæ. *Physalacriæ* Peck affinis.

1. **Baumanniella togoënsis** P. Henn. l. c. tab. XIV, fig. 7 *a–c.* — 840
Pileo vesiculoso-inflato, subgloboso v. ovoideo-subclavato, cavo, tenui, flavo pallescente, 1 1/2-2 mm. alto, 1-1 1/2 mm. crasso; stipite tenui, brevi, æquali, farcto, hyalino, vix 1 mm. longo; basidiis subclavatis, monosporis, cystidiis lageniformibus, valde superantibus, sparsis, 25-30 × 14-16; sporis subglobosis, fuscidulis, levibus, 4-6 μ.

Hab. in cortice in Togo Afr. occ. (Baumann).

Fam. 6. **Tremellaceæ** Fr.

STYPINELLA Schroet. Schles. Pilzfl. p. 383 (Etym. *stypa* stupa, ob contextum stupaceum). — Receptaculum applanatum, stupaceum, immarginatum, ex hyphis laxe intertextis firmis crasse tunicatis formatum; basidia solitaria, transverse articulata, sterigmata filiformia gerentia; sporæ in sterigmatium apicibus oriundæ, simplices. A genere *Hypochno* præcipue basidiis transverse articulatis cylindraceis recedit.

1. **Stypinella orthobasidion** Moell. Protobasid. p. 12 et 161, tab. IV, 841
fig. 1. — Floccis irregularibus, laxis, albis, paucis mm. diam., vix 1 mm. crassis, numerosisimis; hyphis crasse tunicatis, 6 μ. crassis; basidiis rectis, circiter 30 μ. longis, sterigmata subulata 2 1/2 μ. longa gerentibus; sporis oblongo-ovalibus, 7 × 5; sporis secundariis numerosis.

Hab. in corticibus emortuis pr. Blumenau Brasiliæ.

SACCOBLASTIA Moell. Protobasid. p. 162 (Etym. *saccos* saccus et *blastos* germen). — Irregularis, vix 1 mm. crassa, alba, ex hyphis laxe intertextis composita; basidiis liberis, solitariis; cellula,

a qua excrescit basidium, sacculum lateralem vesiculosum gerente. — Est quasi *Hypochnus* sporis pleurogenis, basidiis articulatis, cylindraceis.

1. **Saccoblastia ovispora** Moell. l. c. tab. IV, fig. 3. — Hyphis 6 μ. crassis; sacculo piriformi, 30 × 8; basidiis irregulariter arcuatis, 100 μ. longis; sterigmatibus subulatis, brevibus omnibus; sporis ovalibus, 13 × 7-9, germinatione uniseptatis; sporis secundariis numerosis eadem longitudine; conidiis (spermatiis) minutis, globosis, in hypharum apicibus abundanter ortis. 842

   Hab. ad cortices putridos pr. Blumenau Brasiliæ.

2. **Saccoblastia sphærospora** Möll. l. c. tab. IV, fig. 2. — Hyphis ut in præcedente, tantum crassius tunicatis; sacculo globoso, 11 μ. diam.; basidiis 45-60 μ. longis; sterigmatibus filiformibus, brevibus, subæquilongis; sporis subglobosis, 6-8 μ. diam.; conidiis non visis. 843

   Hab. ad cortices putridos pr. Blumenau Brasiliæ.

JOLA Möll. Protobasid. p. 162 (Etym. a nomine quodam proprio v. vernaculo?). — Membranaceo-incrustans; basidia cylindracea, transverse septata acro-pleurospora; sporæ falcatæ, magnæ.

1. **Jola Hookeriarum** Möll. l. c. p. 163, tab. IV, fig. 4. — Sicca alba vix conspicua, uda gelatinosa, nitida, crustacea; basidiis usque ad 90 μ. longis; sterigmatibus crassis, filiformibus, inæqualibus; sporis longis, falcatis, 28-36 × 6; sporis secundariis numerosis. 844

   Hab. ad capsulas Hookeriæ albatæ et H. jungermanniopsidis pr. Blumenau Brasiliæ.

2. **Jola mahensis** Pat. Bull. Soc. Mycol. de France XIII, p. 98. — Pulvinulis solitariis, albidis, ovoideo-tuberculatis, ex hyphis radiantibus, transverse septatis, hinc inde inflatis compositis; cellulis apicalibus basidiisque ut in *J. javensi*. 845

   Hab. ad calyptram Sematophylli mahensis in insula «Mahe» Javæ (Massart).

3. **Jola javensis** Pat. Ann. Jard. Buitenz. 1897, I, suppl. p. 119. — Pulvinulis solitariis, albis, subglobosis, levibus, opacis, ex hyphis radiantibus, 3-4 μ. crassis, ramosis, transverse septatis, tenuiter tunicatis, cylindraceis, mollibus, longissimis, apice in cellulam clavatam, sursum obtusam, deorsum attenuatam, 20-25 × 5-7, protoplasmate farctam desinentibus; basidiis cylindraceis, rectis, dein curvulis, 45-55 × 5-6, transverse triseptatis e cellula clavata singulatim egredientibus; sterigmatibus pleurogenis, acutiusculis, crassiusculis, 15-20 × 3; sporis hyalinis, fusoideo-falcatis, 15-20 × 3-4. 846

Hab. in fronde muscorum e. g. Sematophyllo, Trichosteleo, Ectropothecio, Java (Massart).

PILACRELLA Schroet. Schles. Pilzfl. I, p. 384, (Etym. a *Pilacre,* cui affinis). — Receptaculum minutissimum, pedicellatum, supra abrupte in discum planum v. subconvexum expansum, e basidiis clavatis septis transversis in articulos divisis compositum; sterigmata brevissima v. nulla; sporæ simplices, hyalinæ–. Habitus fere *Pilacres,* sed basidia elongata transverse pluriseptata, auriculariacea.

1. **Pilacrella delectans** Moell. Protobasid. p. 164. tab. V, fig. 18-33. 847
— Gregaria, circiter 5 mm. alta; stipite hyalino, subpellucido, supra in capitulum album impellucidum $^3/_4$ mm. diam. transeunte; basidiis strato æquali capitulum includentibus, ab hyphis sterilibus cinctis, 60 × 5-6, supra curvulis; sporis sterigmatibus nullis fultis, 14-18 × 7-8; conidiis variis, aliis minutis globosis, 2 μ. diam., aliis magnis oblongis 12-26 × 6-9.

Hab. ad truncos Euterpes oleraceæ in silvis pr. Blumenau Brasiliæ.

2. **Pilacrella Solani** Cohn. et Schroet. l. c. p. 385, Sacc. Syll. X, p. 686.

Hab. in tuberibus Solani tuberosi, Breslau Silesiæ.

MYLITTOPSIS Pat. Journ. de Bot. 1895, n. 247 (Etym. a *Mylitta*). — Receptaculum tuberculiforme, indurato-gelatinosum, e fibris radiantibus omnino compositum, hymenio amphigeno; basidiis rectis, transverse septatis, cum paraphysibus immixtis.

1. **Mylittopsis Langloisii** Pat. l. c. — Receptaculo indurato, ovoideo, irregulariter lobato, 3-4 cm. longo, 2 cm. alto, dense vermiculato, sordide lutescenti; basidiis triseptatis, 30-40 × 35; paraphysibus 150 μ. longis; sporis..... 848

Hab. ad truncos in silvis paludosis, Louisiana Amer. bor. (Langlois).

STYPELLA Moell. Protobasid. p. 166 (Etym. a *Stypinella,* cui affinis). — Est quasi *Stypinella* basidiis globulosis tremellaceis.

1 **Stypella papillata** Moell. l. c. tab. IV, fig. 6. — Acervulis minutis, albis. vix $^1/_2$ mm. crassis, irregularibus, udis vitreis, papillis inordinate dispositis minutissimis asperatis, ex hyphis laxe intertextis tenuissimis interdum usque ad 200 μ. longis ac 10 μ. crassis compositis; basidiis globulosis, 9 μ. diam., dein cruciatim in 4 cellulas 849

secedentibus; sterigmatibus 9 μ. longis; sporis subglobosis, 4 μ. diam.; sporis secundariis numerosis.

Hab. ad ligna et cortices emortuos pr. Blumenau Brasiliæ.

2. **Stypella minor** Moell. l. c. tab. IV. fig. 7. — A præcedente dif- 850
fert basidiis 4-5 μ. diam., sterigmatibus 7 μ. longis ac sporis ovalibus 6 × 3 μ.

Hab. ad ligna emortua pr. Blumenau Brasiliæ.

PLATYGLŒA Schrœt. — Syll. VI, p. 771, XI, p. 146.

1. **Platyglœa blastomyces** Moell. Protobasid. p. 163, tab. IV, fig. 5. 851
— Receptaculis albo-griseis, irregularibus, ceracois, 5 mm. crassis; hyphis tenuissimis, dense intertextis; basidiis filiformibus, usque 200 μ. longis; sterigmatibus tenui-filiformibus, magnitudine variis; sporis oblongis, 12 × 6. Sporæ secundariæ adsunt.

Hab. ad cortices emortuos pr. Blumenau Brasiliæ.

2. **Platyglœa Lagerheimii** (Pat.) Sacc. et Syd. *Helicoglœa Lagerheimii* Pat., Syll. XI, p. 146.

Hab. ad ligna putrida in Æquatoria. — *Helicoglœa* Pat. omnino cum *Platyglœa* congruit, quod jam cl. A. Moeller coniecit.

HETEROCHÆTE Pat. Bull. Soc. Myc. 1892, p. 120, XI, p. 144. (Etym. *heteros* varius et *chæte* pilus). — Fungi heterobasidiospori, effusi, membranaceo-floccosi v. coriaceo-gelatinosi, undique setulosi setulis sterilibus; basidia globoso-ovoidea, cruciatim partita, apice sterigmata bina v. quaterna gerentia; sporæ continuæ, hyalinæ, rectæ v. curvulæ, germinatione promycelium emittentes in conidium unicum apice productum.

1. **Heterochæte ? Solenia** Pat. Bull. Boiss. 1895, p. 59. — Resupi- 852
nata, irregulariter effusa, orbicularis vel repanda, 2-6 mm. lata, albido-ochracea; subiculo tenuissimo, pulverulento, albido; setulis pseudoparenchymaticis, numerosissimis, albido-ochraceis, nudo oculo vix conspicuis, 100-120 × 30-50 υ., densissime stipatis, erectis, teretibus, undique cystidiis hyalinis acutis, crasse tunicatis, rugosis, 20 × 4, ciliolatis; basidiis sporisque non visis.

Hab. ad ramulos emortuos in Æquatoria (v. Lagerheim).

2. **Heterochæte Sanctæ-Catharinæ** Möll. Protobasid. p. 167, tab. IV, 853
fig. 8. — Candida, vix 1 mm. crassa, immarginata, irregularis, undique setulosa, paucis mm. diam.; setulis minutis, 150 μ. longis, apicem versus cystidiiformiter incrassatis ibique usque ad 7 μ. crassis; basidiis oblongo-ovalibus, 21 × 12; sporis 12-15 μ. longis.

Hab. ad cortices emortuos pr. Blumenau Brasiliæ.

SIROBASIDIUM Lag. et Pat. Journ. de Bot. 1892, p. 465, XI, p. 148, (Etym. *seira* series et *basidium*). — Fungi gelatinosi, pulvinati, ubique hymenio vestiti; basidia ex apice hypharum oriunda, globosa v. ovoidea, longitudinaliter quadripartita, in catenulas disposita, quarum articuli inferni juniores; sporæ e quacumque parte basidii singulatim oriundæ, continuæ, fusiformes, sessiles.

1. **Sirobasidium Brefeldianum** Möll. Protobasid. p. 165, tab. VI. — 854
Acervulis minutis albis, 3 mm. diam., dacryoideis; basidiis septo obliquo in duas cellulas divisis, in catenulas dispositis; catenulis circiter ex 10-12 v. pluribus articulis compositis; sporis adhuc adhærentibus oblongis, 22-24 × 7-8, post secessionem globosis.

Hab. in ligno putrido pr. Blumenau Brasiliæ.

EXIDIOPSIS Ols. in Bref. Untersuch. VII, p. 94; Möller Protobasid. p. 167. (Etym. ab *Exidia*, cui affine genus). — Fungi membranacei, pelliculosi, tenuissimi, leves, ceracei, crustam formantes; basidia globoso-ovata, tremellacea. Adsunt conidia hamata, minutissima, in conidiophoris racemose disposita.

1. **Exidiopsis cerina** Moell. l. c. p. 167. — Tenuissima, grisea, ce- 855
racea, gelatinosa, incrustans, levis; basidiis ovalibus, 12 μ. diam.; sporis oblongis, leniter curvulis, 8-9 × 6; adsunt sporæ secundariæ.

Hab. ad ligna putrescentia pr. Blumenau Brasiliæ.

2. **Exidiopsis verruculosa** Moell. l. c. p. 168. — Tenuissime pellicu- 856
losa, alba, immarginata, papillis minutissimis ex hyphis sterilibus compositis subtilissime granulata; basidiis 10 μ. diam.; sterigmatibus 10 . . longis; sporis leniter curvulis, 9-10 × 4; adsunt sporæ secundariæ.

Hab. ad cortices putridos pr. Blumenau Brasiliæ.

3. **Exidiopsis tremellispora** Moell. l. c. p. 168. — Gelatinosa, grisea, 857
ceraceo-mollis, subgelatinosa, incrustans, papillis minutissimis vix 100 μ. altis, ex fasciculis hypharum sterilium compositis, granulata; basidiis subglobosis, 20-22 . . diam.; sterigmatibus longitudine variis; sporis subpiriformibus, 16 × 11.

Hab. in corticibus et lignis emortuis pr. Blumenau Brasiliæ.

4. **Exidiopsis glabra** Moell. l. c. p. 168. — Pelliculosa, levis, immar- 858
ginata, incrustans, papillis nullis; basidiis 18 × 12; sporis subglobosis, 12 × 10.

Hab. ad truncos emortuos pr. Blumenau Brasiliæ.

5. **Exidiopsis ciliata** Moell. l. c. p. 168. — Subrotunda, 1-2 mm. crassa alba, cartilagineo-gelatinosa, effusa, margine subtiliter ac regulariter ciliata, plura cm. diam. tota papillis subtilissimis granulosis ex hyphis sterilibus apicem versus cystidiiformiter incrassatis 15–20 μ. longis, usque 10 μ. crassis compositis tecta; basidiis globosis, 12-14 μ. diam.; sporis leniter curvulis, 12-15 × 6. 859

Hab. in corticibus putridis pr. Blumenau Brasiliæ.

EXIDIA Fr. — Syll. VI, p. 772, IX, p. 257, XI, p. 146.

1. **Exidia succina** Moell. Protobasid. p. 169. — Gelatinosa, succinea, irregularis, ex rimis corticium erumpens, stipite brevissimo prædita; basidiis 10-12 μ. diam.; sporis curvulis, 10-12 × 4-5. 860

Hab. ad cortices putrescentes pr. Blumenau Brasiliæ.

CRATEROCOLLA Bref. — Syll. VI, p. 778.

1. **Craterocolla minuta** Pat. Bull. Soc. Myc. de Fr. 1895, p. 210. *(Ditangium).* — Minutissima, $^1/_4$ mm. diam.; receptaculis gregariis, sessilibus, cupuliformibus, extus ochraceo-brunneis, rugulosis; hymenio gelatinoso, rosello-hyalino, in sicco cupulari, udo plano aut convexo; basidiis globosis vel ovoideis, 15-20 × 10-12, stipitatis, cruciatim 2-4-septatis (septa sæpe obliqua); sterigmatibus filiformibus, longissimis. 861

Hab. parasitica in Perisporiacea quadam ad folia arborea in Æquatoria (v. Lagerheim).

TREMELLA Dill. — Syll. VI, p. 780, IX, p. 258, XI, p. 147. Cfr. Grev. XX, p. 15.

1. **Tremella crocea** P. Henn. Hedw. 1897, p. 191. — Gelatinosa, effusa, flavo-aurantia, in sicco crocea, cartilaginea, ca. 1-1 $^1/_2$ cm. diam., gyroso-plicata, undulato-lobata, lobis rotundatis; basidiis subglobosis, ca. 10 μ. diam., sterigmatibus elongatis; sporis ovoideis v. piriformibus, 7-8 × 6-7; odore graveolenti. 862

Hab. ad corticem trunci pr. Blumenau Brasiliæ (Ule). — *Tremellæ dysentericæ* Möll. affinis.

2. **Tremella mucoroidea** Pat. Ann. Jard. Buitenz. 1897, I, suppl. p. 117. — Pulvinulis solitariis, gelatinosis, ex albo subhyalinis, ovoideis, levibus, minutissimis, vix $^1/_2$ mm. altis; hyphis ramulosis, tenuibus, 2 μ. crassis, mucosis, brevibus; basidiis amphigenis, globoso-ellipsoideis, 6-8 μ. diam., longitudinaliter cruciatim septatis; sterigmatibus 10 μ. longis, filiformibus, apice acutis, flexuosis, substantia mucosa 863

immersis; sporis oblongis, hyalinis, apice obtusis, basi oblique apiculatis, 6 × 3.

Hab. in thallo Riccardiae sp. Java (Massart).

3. **Tremella setulosa** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 83. — Gelatinosa, cæspitosa, foliacea, crispa, laciniato-lobata, albida, rugulosa, setis simplicibus, erectis, rigidis, circiter 1 mm. longis, nigris v. griseis, utrinque tecta, circiter 8 cm. lata, 5 cm. longa, lobis lobato-incisis, margine sinuosis, crispatis; sporis ovoideis v. subglobosis, 7-8 × 4-6; basidiis subglobosis; sterigmatibus elongatis, filiformibus. 864

Hab. ad truncos putres, Kamerun (Dusen). — A *T. fuciformi* differt setis rigidis, patentibus nigris et sporis minoribus.

4. **Tremella olivaceo-nigra** Britz. Hymen. Kunde, I, 1895, p. 14, f. 28. — Mollissima, olivaceo-nigra vel nigra, non verrucosa; sporis luteolis, 6-8 μ. diam. 865

Hab. ad truncos pineos in Bavaria.

5. **Tremella faginea** Britz. Hymen. Kunde, I, 1895, p. 16, fig. 29. — Glabra, nigro-brunnea vel viridulo-brunnea; sporis luteolis, arcuatis, 14-16 × 4. 866

Hab. in truncis fagineis in Bavaria.

6. **Tremella ochracea** Pat. Bull. Boiss. 1895, p. 59. — Effusa, corticioidea, 3-5 cm. longa, tenuissima, ochracea, subgelatinosa, vix pellucida; basidiis subglobosis, cruciatim 4-septatis, 10-12 . diam.; sporis non visis. 867

Hab. in trunco putri Chusqueae in Æquatoria (v. Lagerheim).

7. **Tremella compacta** Moell. Protobasid. p. 170, t. I, f. 2, t. IV, f. 12. — Globosa, gelatinosa, compacta, irregulariter lobata ac plicata, pallide ochracea, plura cm. diam., per ætatem intus hic illic cava; basidiis globulosis, 12-14 μ. diam.; sporis globosis, 6-7 μ. d. 868

Hab. ad cortices putrescentes pr. Blumenau Brasiliæ.

8. **Tremella dysenterica** Moell. Protobasid. p. 172. — Mollis, mucoso-gelatinosa, plura cm. diam., vitrea, flava v. lutea, striis sanguineis prædita ibique hymenio tecta; basidiis globosis, 10-12 diam.; sporis 6-9 μ.; conidiis subglobosis, 3 μ. diam. 869

Hab. in fragmentis ligneis putridis ac udis pr. Blumenau Brasiliæ.

9. **Tremella damæcornis** Moell. Protobasid. p. 172, t. IV, f. 9. — Irregularis, erecta, 1 cm. alta, gelatinoso-cartilaginea, lobata, cornicuiata, dilute lutea, undique hymenio tecta; basidiis globosis 7-9 μ. diam.; sporis 5-7 μ. 870

Hab. in truncis pr. Blumenau Brasiliæ.

10. **Tremella fucoides** Moell. Protobasid. p. 171, t. II, f. 2, t. IV, fig. 17. — Lobis irregulariter oblongis, tremulis, gelatinosis luteo-brunneis, bipartitis, 2-3 cm. longis, intus cavis, pellucide tunicatis, fasciculato-conjunctis; basidiis oblongo-ovalibus, 10-15 μ. diam.; sporis 8 ≈ 6-7. 871

Hab. ad truncos pr. Blumenau Brasiliæ.

11. **Tremella spectabilis** Moell. Protobasid. p. 171, tab. II, fig. 2. — Cæspitosa, maxima, dilute ochracea, 6-8 cm. diam., levis, lobis intus cavis gyroso-plicatis; basidiis globosis 13-15 μ. diam.; sporis oblongis, 10 ≈ 5-6. 872

Hab. ad truncos pr. Blumenau Brasiliæ.

12. **Tremella anomala** Moell. Protobasid. p. 171, tab. IV, fig. 11. — Subpellucida, sordide flava, globosa, minuta, gyroso-plicata; basidiis globosis 10 μ. diam.; sporis 6 μ. diam. 873

Hab. ad ramos emortuos pr. Blumenau Brasiliæ.

13. **Tremella fibulifera** Moell. Protobasid. p. 170, tab. II, fig. 3. — Tenuissima, tremula, vitrea, subpellucida, irregulariter lobata, undulato-gyrosa, usque ad 10 cm. diam.; basidiis globosis 12-16 μ. diam.; sporis 7-10 μ. diam. 874

Hab. in lignis putridis in silvis pr. Blumenau Brasiliæ sat frequens.

14. **Tremella auricularia** Moell. Protobasid. p. 170, tab. IV, fig. 16. — Lobis foliaceis, sæpe auriformibus, gelatinoso-cartilagineis, brunneis, plura cm. diam., squamiformiter v. imbricate dispositis, e cortice erumpentibus; basidiis globosis 15 μ. diam.; sporis piriformibus 10-12 μ. diam. 875

Hab. ad cortices putridos pr. Blumenau Brasiliæ. — Habitus externus fere omnino *Tremellæ frondosæ*.

15. **Tremella Britzelmayri** Sacc. et Syd. Sic nominanda est *Tremella pinicola* Britz., Sacc.-Syll. XI, p. 147, quum exstet anterior *T. pinicola* Peck, Sacc. Syll. VI, p. 784.

PROTOHYDNUM Moell. Protobasid. p. 173 (Etym. *protos* primus et *Hydnum*). — Est *Hydnum* resupinatum, tremellaceum.

1. **Protohydnum cartilagineum** Möll. l. c. tab. III, fig. 1, tab. V, fig. 35. — Ceraceum, dilute flavum, usque 3 mm. crassum, immarginatum, effusum, superficie aculeis obtuse conicis crassis, 4-5 mm. altis, confertissimis præditum; basidiis oblongis, 15 μ. longis, 9- 876

10 μ. latis, utrinque subcompressis; sterigmatibus 30 μ. longis; sporis rectis, 9 × 4-5.

Hab. ad truncos putridos pr. Blumenau Brasiliæ.

HYALORIA Moell. Protobasid. pag. 173. (Etym. *hyalos* vitrum). — Fungi cæspitosi, stipitati, verticales, columnares, apice incrassati, gelatinosi, vitrei; fructificatio tremellacea.

1. **Hyaloria Pilacre** Moell. l. c. tab. I, fig. 3, tab. V, fig. 27. — 877
Vitrea, 2 cm. alta, 3-4 mm. crassa, apice capitulo nitido prædita; basidiis oblongis, 14 × 7, sterigmata subæqualia 3 μ. longa gerentibus; sporis oblongo-ovalibus, 7 μ. longis, numerosissimis.

Hab. ad caudices putres, præsertim Palmarum (Euterpes) pr. Blumenau Brasiliæ.

DACRYOMYCES Nees. — Syll. VI, p. 796, IX p. 259, XI, p. 148.

1. **Dacryomyces guepiniæformis** Pat. Cat. rais. pl. cell. Tunisie 1897, 878
p. 74. — Gregarius, stipitatus, 3-5 mm. latus, disciformis, gelatinosus, luteus; disco plano v. depresso, margine deflexo, tumido, subtus levi glabro; basidiis furcatis, 50-60 × 5-7; sporis oblongis, curvulis, hyalinis, utrinque obtusis, 3-septatis, 13-15 × 6-7; conidiis hyalinis, minutissimis, subglobosis, sterigmatibus brevibus suffultis; stipite 1 mm. alto, excentrico, luteo, brevi, radicato, in lignum intrante.

Hab. in ligno denudato et putrido Quercus Mirbeckii in Tunisia.

GUEPINIA Fr. — Syll. VI, p. 805, XI, p. 150,

1. **Guepinia helvelloides** P. Henn. Pilze Ostafr. p. 53. — Tremelloso- 879
tenax, flavo-aurantia, solitaria v. confluenti-cæspitosa; stipite clavato, late compresso, pallidiore, 5-7 mm. longo crassoque; pileo helvelliformi, primo subcampanulato, undulato, deinde plicato v. deflexo-lobato, margine libero, involuto, 5-9 mm. diam.; basidiis repetito furcatis, ramis strictis apice subincrassatis; sporis plerumque oblongo-lunulatis raro rectis, cylindraceis, transverse 8-septatis, hyalinis, subgranulatis, 17-21 × 7-9.

Hab. in ligno putrido in Africa trop. (Volkens).

2. **Guepinia camerunensis** P. Henn. Fungi camerun. I, in Engl. 880
Jahrb. XXII, 1895, p. 84. — Subgelatinosa, tenax, pallide flava, 1-2 cm. alta, late compressa, flabellata v. spathulata, sinuosa lobataque vel in cupulam discoideam dilatata, cupula intus glabra.

flava; sporis ellipsoideis, curvulis, hyalinis, granulatis, deinde multiseptatis, 7-9 × 5-6; basidiis furcatis, sterigmatibus ca. 40 μ. longis.

Hab. ad ligna putrida, Kamerun (JUNGNER)

3. **Guepinia agaricina** Pat. Bull. Soc. Myc. de Fr. 1895, p. 210. 881
(Guepiniopsis). — Simplex, regularis, stipitata; pileo orbiculari, 3-8 mm. diam., tenui, depresso dein undulato-plano, regulari vix repando, brunneo-fusco, coriaceo, vix gelatinoso, margine revoluto, subtus pallidiori, minute furfuraceo, 5-8 plicis lamelliformibus radiantibusque notato; stipite centrali, cylindraceo vel compresso, 1-4 mm. longo, 1 mm. crasso, coriaceo, farcto, villoso, pallide fusco-brunneo, inferne radicato; basidiis apice furcatis, 50 × 5-7 sporis hyalinis, ovatis, inferne attenuatis, 3-5 transverse septatis, 16-20 × 6-7.

Hab. ad ligna putrida in Æquatoria (v. LAGERHEIM). — *G. elegant* Berk. affinis.

4. **Guepinia andina** Pat. Bull. Soc. Myc. de Fr. 1895, p. 211. *(Guepiniopsis).* — Sparsa vel gregaria, simplex, regularis, stipitata; pileo orbiculari, 3-6 mm. diam., tenui, depresso, dein plano vel convexo, margine deflexo, integro, vix undulato, carneo-gelatinoso, subpellucido, pallide flavo-fusco, subtus levi, nudo oculo glabro, sub lente tenuiter puberulo; stipite centrali, homogeneo, farcto vix 1 mm. longo, fusco; basidiis apice furcatis, 50 μ. longis; sporis ovatis, inferne attenuatis, rectis vel curvatis, hyalinis, transverse triseptatis, 16 × 6. 882

Hab. ad ligna putrida in Æquatoria (v. LAGERHEIM).

DACRYOMITRA Tul. — Syll. VI, p. 811.

1. **Dacryomitra Cudonia** Bres. Hedw. 1896, p. 293. — Luride lutea; 883
stipite tereti, 1 mm. circiter longo crassoque, levi; clavula subglobosa, 1-2 mm. diam., costis crassis et tortuosis, rugoso-undulata; basidiis cylindraceo-clavatis, bifurcatis, 45-50 × 4-6; sporis cylindraceo-subcurvulis, 1-3-septatis, flavis, 8-10 × 5-5 1/2; hyphis subhymenialibus 3 μ. latis.

Hab. ad ligna pr. Blumenau Brasiliæ (MÖLLER). — E forma videretur prorsus *Cudonia circinans* (Pers.) Fr. diminuta.

GASTEROMYCETÆ Willd.

Syll. fung. VII, p. 1, IX, p. 262, XI, p. 152.

Fam. 1. **Phallaceæ** Fr.

DICTYOPHORA Desv. — Syll. VII, p. 3, IX, p. 262, XI, p. 152..

1. **Dictyophora chlorocephala** De Seyn. Rech. Champ. Congo fr. 1897, I, p. 1, tab. I, fig. 32. — Stipite albo, reticulato poroso, deorsum fusiformi acuto, 8 cm. alto, $1^1/_2$ cm. lato; indusio albo, conico, reticulato, stipitem usque ad volvam vestiente; volva alba, aperta $2^1/_2$ cm. alta, persistente; pileo conico-obtuso, orbiculato, luteo, 11 mm. longo, 14 mm. lato, sensim reticulato; sporis ellipsoideis, translucidis, 3-4 × 2. 884

   Hab. ad terram pr. Talagouga in regione kongolana gallica. — *D. Braunii* P. Henn. ex Kamerunia affinis. Quum pileus sit luteus nec viridis, species *Dictyophora xanthocephala* est aptius dicenda.

CRYPTOPHALLUS Peck, Bull. Torr. Bot. Cl. 1897, p. 147 (Etym. *cryptos* latens, et *Phallus*). — Receptaculum e stipite cavo et pileo consistens. Volva subcircumscisse aperta, parte superiore cum pileo remanente et glebam includente, cetera ut in *Ithyphallo*, cui affine genus.

1. **Cryptophallus albiceps** Peck l. c. — Pileo subcampanulato, circiter $2^1/_2$ cm. alto, 2 cm. lato, apice obtuso v. rotundato, fragmentis albidis volvæ ruptæ minute tomentosæ tecto; stipite cylindrico, cavo, $6^1/_2$-$10^1/_2$ cm. longo, 1-$1^3/_4$ cm. crasso, albido v. pallido, basi partis inferioris volvæ inserto; velo nullo; sporis anguste ellipticis, 4-$5^1/_2$ × $2^1/_2$. 885

   Hab. in agris, Kansas, ad basim trunci in Canada, Amer. bor.

FLOCCOMUTINUS P. Henn. Fungi camerun. I. in Engl. Jahrb. XXII, 1895, p. 109 (Etym. *floccus* et *Mutinus* cui affinis). —

Receptaculum stipitiforme, fasciato-compressum, pileo carens, in parte superiore pulpa sporifera obtectum, annulato-sulcatum, dein floccis (trama?) vestitum. Sporæ tereti-ellipsoideæ. — *Mutino* affinis.

1. **Floccomutinus Zenkeri** P. Henn. l. c. — Cæspitosus e mycelio radiciformi albo, ramoso, repente, vix 20 mm. altus, volva bilobata, flavo-carnea v. rufa, circ. 2-3 mm. longa, 2 mm. lata; stipite fasciato-compresso, transverse sulcato plicatoque, cavo, 5-10 mm. longo, $1^1/_2$ mm. lato, pallido, parte sporifera eadem structura, compressa, conico-elongata, pulpa sporarum fusco-olivacea obtecta, mox nuda, annulato-sulcata, annulis floccis subramosis tegentibus, 5-10 μ. longa; sporis cylindraceo-ellipsoideis, minutissimis, levibus, $3 \times {}^3/_5$ μ., hyalino-subfuscescentibus. 886

Hab. ad truncos vetustos in silvis, Kamerun (Zenker et Staudt).

KALCHBRENNERA Berk. — Syll. VII, p. 14.

1. **Kalchbrennera Tuckii** (Kalchbr. et Mc. Ow.) Berk.-Sacc. Syll. VII, p. 14. — Var. **clathroides** P. Henn. Fungi camerum. I, in Engl. Jahrb. XXII, 1895, p. 108. — Receptaculo cylindraceo, apice rotundato-obtuso, 7 cm. longo; stipite cylindraceo, ca. $2^1/_2$ cm. alto, $3^1/_2$ cm. crasso, albo, e cellulis favosis irregularibus; parte sporifera ca 5 cm. alta, $2^1/_2$ cm. crassa, cancellata, coccinea, ramis plus minus distincte transverse rugosis, compresso-rotundatis, 2-3 mm. altis, interstitiis irregulariter polygonis, extus pulpa olivacea sporarum vestita; sporis cylindraceo-oblongis, hyalinis, $4^1/_2$-$5^1/_2 \times 2$. 887

Hab. ad terram in silvis, Togo (Baumann).

CLATHRUS Mich. — Syll. VII, p. 18, IX, p. 264, XI, p. 154.

1. **Clathrus Preussii** P. Henn. in litt. *Clathrus cameroënsis* P. Henn. var. *Preussii* P. Henn. in Fg. camerun. I, pag. 108. — Receptaculo ovoideo, 11 cm. circiter alto, 7 cm. lato; parte inferiori indivisa, stipitiformi, $2^1/_2$ cm. circiter alta, 1-4 cm. lata, sursum in ramos 8 usque ad 1 cm. latos fissa; ramis ipsis ac insequentibus ligulato-applanatis, late compressis, extrorsum profunde canaliculatis, margine dentibus 3-4 mm. longis pluries incisis præditis, transverse rugosis; interstitiis ovoideis v. angulosis, usque ad 2 cm. longis latisque; volva $3^1/_2$ cm. lata, 3 cm. alta, e mycelio funiformi oriunda. 888

Hab. ad terram in Camerunia. — *C. crispo* affinis.

Fam. 2. **Nidulariaceæ** Fr.

NIDULARIA Fr. — Syll. VII, p. 28, IX, p. 265, XI, p. 156.

1. **Nidularia alabamensis** Atk. Bull. Cornell. Univ. III, n. 1, 1897, 889
p. 23. — Peridio sphærico, sessili, rubescenti-brunneo, 4-5 mm. diam., fibris rhizoideis basi non instructo, irregulariter rupto; sporangiolis lenticularibus, nitentibus, nigro-brunneis v. obscuris, 1 mm. diam., corrugatis, duris, numerosissimis, pulpam albidam e filamentis irregulariter flexuosis v. ramoso-nodulosis valde tuberculosis compositam infarcientibus; sporis obovatis, hyalinis, 4-6 × 3-4.

Hab. in ligno putrido, Auburn, Alabama Amer. bor. — *N. farctæ* proxima.

CYATHUS Hall. — Syll. VII, p. 32, IX, p. 266, XI, p. 156.

1. **Cyathus rufipes** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 125. — 890
Peridio obconico, circiter 1 cm. alto, 4 mm. lato, tenui, intus obscure alutaceo levique, supra non striato, extus dense strigoso-tomentoso, basi tomento rufo ornato, margine connivente asperoque; sporangiolis discoideis, 1 $^1/_4$ mm. diam., maturitate nigricantibus, concavis et rugosis, superficie fibrillis gracilibus 3 μ. crassis brunneis intricatis obtextis; sporis globosis v. ellipticis, 20-27 × 15-20.

Hab. ad terram, Kansas Amer. bor. (Bartholomew).

2. **Cyathus affinis** Pat. Bull. Soc. Mycol. de France 1895, p. 87. — 891
Peridio obconico, rubescente, strigoso-squamuloso, dein glabrescente, non striato, 1-1 $^1/_2$ cm. alto, epiphragmate albido, intus cinereo, glabro; sporangiolis 5-8 consociatis, 2 mm. latis, $^1/_2$ mm. crassis, pallidis, orbicularibus, glabris, subtus umbilicatis, funiculo albo brevi; sporis hyalinis, magnis, 23-30 × 16-20, ovoideis, levibus; subiculo membranaceo, rubro, tomentoso, basim peridii cingente.

Hab. in detritis ligneis, Madagascar. — An idem ac *C. Lesueurii* Tul.?

3. **Cyathus minimus** Pat. Journ. de Bot. 1897, p. 345. — Peridio 892
albo-rubescente, obconico, 3-4 mm. alto, 2-3 mm. lato, coriaceo-papyraceo, squamuloso, margine integro angustissimo, intus glabro levique, nunquam striato, pallide rubro; sporangiolis 9-15 in quoque peridio, discoideis, nigris, levibus, vix 1 mm. diam., funiculo albo minuto munitis; sporis levibus hyalinis, ovoideo-elongatis, 20-23 × 8-10.

Hab. in radicibus herbarum in Tonkin.

Fam. 3. **Lycoperdaceæ** Ehrenb.

SECOTIUM Kunze — Syll. VII, p. 51, IX, p. 266, XI, p. 157.

1. **Secotium decipiens** Peck, Bull. Torr. Bot. Club. 1895, p. 492. — 893
Peridio subgloboso v. depresso-globoso, superficie in squamas latas, laxas v. adpressas erupta, cremeo; parte peridii inferiore stipiti dense affixa, tandem a parte superiore solubili, interdum in longitudine affixa et gradatim decidente; gleba universali, septis lamelliformibus, anastomosantibus, cellulas irregulares v. sublabyrinthiformes formante, libera, nigra; stipite firmo, solido, sursum plerumque attenuato, sub peridio abrupte angustato, extus colore pilei, intus luteo; sporis globosis v. subglobosis, levibus, nigris v. brunneolo-nigris, 5-7 μ. longis.

Hab. ad vias et in herbosis in California (Mc Clatchie). — Peridium 2-10 cm. latum; stipes 8-16 cm. longus, basi fere 2-3 cm. crassus, summo apice 1-2 cm. crassus.

CYCLODERMA Klotzsch. — Syll. VII, p. 56 et 470.

1. **Cycloderma apiculatum** A. L. Smith. Journ. of Bot. 1895, p. 340. 894
— Peridio exteriori globoso, rugoso, fuliginoso, apice umbonato, interiori papyraceo, separabili, ochraceo; columella alba, medio constricta; glebæ maturæ filamentis dilutius fuliginosis; sporis concoloribus, minutis, sphæricis.

Hab. ad terram silvestrem, Ruovenzori Africæ orient. (Elliot). Siccum circiter 1,5 cm. diam.

PODAXON (Desv.) Fr. — Syll. VII, p. 58, IX, p. 267, XI, p. 158.

1. **Podaxon Glaziovii** P. Henn. Hedw. 1897, p. 210. — Peridio ovato, 895
albido, membranaceo, apice obtuso-rotundato, basi laciniato-dehiscente, ca. $2^1/_2$ cm. longo, 2 cm. lato; stipite duro, lignoso, squamis membranaceis, latis, albidis tecto, substriato, basi subbulboso, ca. 17 cm. alto, basi ca. 2 cm. medio ca. 1 cm. crasso; sporis subglobosis, ovoideis vel ellipsoideis, læte brunneis vel melleis, 9-12 × 8-10, episporio levi vel punctatulo; floccis capillitii melleis, flexuosis, 5-6 μ. crassis.

Hab. ad terram pr. Goyaz Brasiliæ (Glaziou).

2. **Podaxon Perraldieri** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 68, 896
Explor. Tun. Illustr. bot. tab. III, fig. 3. — Peridio ovato v. elongato, apice attenuato, 5-10 cm. alto, 4-5 cm. lato, pallide rufo

vinosove, chartaceo, squamis adpressis vestito, intus albido; stipite lignoso, longitudinaliter striato-costato albido-rufescente, æquali, cylindraceo, 8-12 cm. longo, 8-10 mm. crasso, farcto, contextu brunneo, inferne bulboso; gleba lanosa, inferne violaceo-vinosa superne olivaceo-nigrescente, columellâ percursa; capillitio bene evoluto, floccoso, pallide rufo, non spiraliter diffracto, 5-8 μ. crasso; basidiis glomerulatis, rufulis, sporas quaternas gerentibus; sporis ellipticis apice poro impressis, olivaceis, dein rubris, 14-15 × 10-12

Hab. in sabulosis in Tunisia — *P. indico* Fr. affinis.

ELASMOMYCES Cavara, Malpighia 1897, p. 426 (Etym. *elasmos* lamina). Peridium semiepigæum, stipitatum, globulare, primo clausum, dein inferne apertum, subtus lamellis spuriis crassis, radiantibus, donatum; stipes brevis, farctus, evolvatus, in columellam usque ad peridium desinens; gleba celluloso-spongiosa; hymenium e basidiis 2-4-sterigmaticis, cystidiis paraphysibusque efformatum; sporæ sphæricæ, difformes, aculeatæ.

1. **Elasmomyces Mattirolianus** Cav. l. c. tab. VII. — Peridio globoso, globoso-depresso v. anguloso, levi, albo-flavescente, margine tenui, interdum fracto; lamellis obtusis, albis, parum evolutis; gleba e flavo ochracea, lacunis minutis irregularibusque; stipite solido, cylindraceo-gibboso, plerumque oblique inserto; basidiis clavato-truncatis; paraphysibus cylindraceis brevioribus; cystidiis oblongo-ellipticis, prælongis; sporis sphæroideis, aculeolatis, luteo-brunneis, aliis 14-15 μ., aliis 8-9 μ. diam. 897

Hab. ad terram sub acubus deciduis Abietis pectinatae pr. S. Giovanni Gualberto Vallisumbrosæ in Italia.

TYLOSTOMA Pers. — Syll. VII, p. 60, IX, p. 268, XI, p. 159. — Sec. Massee Grev. XIX, p. 97, genus *Sphæriceps* W. et C., Sacc. Syll. VII, p. 60, est *Battarrea*.

1. **Tylostoma montanum** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 70; Explor. Tun. Illustr. bot. tab. III, fig. 2. — Peridio subgloboso, papyraceo, sursum glabro, deorsum zona scruposo-tomentosa cincto, pallide brunneo, 2 cm. lato, ore scarioso, integro, 1 mm. alto, 2 mm. lato; stipite a peridio discreto et in acetabulum peridii immerso, rufo-brunneo, in squamas latas, glabras diffracto, 5-7 cm. longo, 5-8 mm. crasso, intus albo, basi marginato-bulboso; gleba argillacea; capillitii floccis cylindraceis, hyalinis, 5-8 μ. latis; sporis globosis, 5-6 μ. diam., asperulis, ochraceis. 898

Hab. in sabulosis in Tunisia.

2. **Tylostoma punctatum** Peck, Bull. Terr. Bot. Cl. XXIII, 1896, p. 419. — Peridio subgloboso, basi applanato umbilicatoque, minute et irregulariter punctato, albido; exoperidio supra evanescente, basi persistente; endoperidio papyraceo, firmo, tenaci; ore leviter prominente, minuto, lacerato; stipite cylindraceo, obscure squamoso v. rimoso-squamoso, supra sulcato-striato, cavo, subferrugineo, intus albo; sporis pallide ferrugineis, globosis, minute verrucosis, 4-5 μ. latis; capillitii floccis hyalinis, parce ramosis, 8-10 $^1/_2$ μ. latis, utrinque obtusis v. subtruncatis, interdum incrassatis. 899

Hab. ad terram sabulosam, Kansas, Amer. bor. (Bartholomew). — 2 $^1/_4$-4 cm. altum; peridium 1 $^1/_4$-1 $^1/_3$ cm. diam.; stipes 5 mm. crassus.

3. **Tylostoma carneum** Pat. Enum. Champ. Tunisie, 1892, p. 6, tab. I, fig. 3. — Peridio globoso v. depresso, albido, 1-1 $^1/_2$ cm. lato, glabro, basi fulvo-villosa excepta; osculo subprominente, membranaceo, integro; basi peridii appendiculâ membranaceâ villosâ stipitem amplectente; stipite hirsuto, rubro, dein glabro et albo, 5 cm. longo; gleba pallidissima, carneo-rubra; capillitio sub lente incolorato, crasso, ramoso; sporis angulosis, pallidissimis, fulvis, diaphanis, latissime asperulis, sublevibus, 5 μ. diam. 900

Hab. in sabulosis in Tunisia. — Var. **nanum** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 69; Explor. Tun. Illustr. bot. tab. III, fig. 1. — Peridio subgloboso, 1-8 mm. diam., albido v. plus minus ochraceo, superne glabro, inferne scruposo-villoso, osculo scarioso, integro, valde prominulo; stipite gracili, albido, striato, squamulis nonnullis tecto, 3 mm. crasso, farcto; gleba pallide carnea, gossypina; sporis globoso-angulosis, levibus v. minutissime asperulis, 4-5 μ diam., pallidis; capillitio hyalino, gracili, 5-7 μ. crasso. In sabulosis in Tunisia.

4. **Tylostoma semisulcatum** Peck, Bull. Torr. Bot. Club. 1895, p. 209. — Peridio subgloboso, 20 mm. longo, 13 $^1/_2$-18 mm. lato, superne glabro, inferne ferrugineo-tomentoso; ostiolo integro; stipite æquali, circiter 5 cm. longo, glabro v. superne leviter furfuraceo, inferne in longitudine sulcato, albido; sporis ferrugineis, globosis, 4-5 $^1/_4$ μ. latis; capillitii fibris hyalinis, non septatis. 901

Hab. ad terram sabulosam, Nevada, Amer. bor.

BATTARREA Pers. — Syn. VII, p. 65, IX, p. 270.

1. **Battarrea Digueti** Pat. et Har. Journ. de Bot. 1896, p. 251, 902

tab. II. — Exoperidio globoso-applanato, subtus profunde depresso, albido, membranaceo, indehiscente, demum plus minus sese destruente et poros irregulariter in superficie dispersos efformante dilacerato, duabus partibus composito, quarum inferiore cum stipite connexa, orbiculari, depressa, altera superiore convexa, cum inferiore intime connexa et ab ea nunquam discreta; volva, seu exoperidio, in superficie endoperidii plus minus persistente et cuticulam cretaceam effingente, ovata, tribus partibus efformata, quarum exteriore cretacea, coriacea, rigida, simplice, media lamellis 10-20, tenuibus, membranaceis, fibrosis, lignicoloribus constituta, interiore concolore 1-1 $^1/_2$ mm. circiter crassa, dura, lignosa, vaginæ instar cylindricæ stipitis basim involvente; gleba ochraceo-ferruginea, pulverulenta, capillitium fovente; hyphis e parte depressa inferiore peridii sursum radiantibus, incoloribus, 6-7 μ., membrana crassa præditis; sporis globosis, ferrugineis, 5-6 μ. crassis, vix asperulis, cum cellulis simplicibus, fusiformibus, incoloribus, 100-150 × 4-7 μ. annulis luteis signatis immixtis; stipite centrali, 15-20 cm. alto, 8-10 mm. crasso, dilute fulvo, basi usque ad tertiam partem cortice volvæ interiore circumdato, squamoso, dein vetustate nudo, profunde sulcato, cylindrico, basi attenuato, intus cavo et funiculo æquilongo percurso; squamis obscure imbricatis cum stipite concoloribus, aliis pendulis, erectis alteris, scariosis, linearibus.

Hab. ad terram in California (Diguet).

2. **Battarrea attenuata** Peck, Bull. Torr. Bot. Club. 1895, p. 208. — 903
Exoperidio incognito; endoperidio 5 $^1/_2$ cm. vel ultra lato, parte basali dura, crassa, inferne concavo, superne convexo, dense subreticulato; stipite 12-26 cm. longo, basim versus gradatim attenuato, duro, sublignoso, solido, aspero, apice excepto, squamis explanatis v. reflexis dense obsito, extus brunneo, intus ferrugineo; sporis globosis, ferrugineis, 7-8 μ. latis, capillitii fibris spiralibus non intermixtis.

Hab. ad terram sabulosam, Nevada, Amer. bor.

GEASTER Mich. Syll. VII, p. 70, IX, p. 271, XI, p. 162.

1. **Geaster velutinus** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 904
1895, p. 38, tab. I, fig. 7. — Mycelio fibroso; exoperidio dense minuteque griseo-pubescente, in segmenta 5-7 acuta dehiscente, strato interiore carnoso tenui solubili, sed persistente; endoperidio globoso, sessili, levi, pallido; osculo conico, ciliato-fimbriato; columella subclavata, centrum attingente; capillitii filamentis pallide

brunneis, 3-6 μ. crassis; sporis globosis, levibus, pallide brunneis, $2^1/_2$-3 μ. diam.

Hab. ad terram, Columbia Amer. bor. (Atkinson). — Endoperidium circiter 1 cm. diam.; segmenta 3-4 cm. expansa.

2. **Geaster Hieronymi** P. Henn. Hedw. 1897, p. 211. — Exoperidio 905
coriaceo, sicco rigido involuto, ad medium in 8, rarius 10 lacinias subæquales lanceolatas 1-2 cm. longas partito, extus alutaceo vel fusco, intus subrufescente, rimoso, 4-6 cm. diametro; endoperidio stipitato, ovoideo vel subsphæroideo, $1^1/_2$-$2^1/_2$ cm. diametro, dense asperato, aculeis subulatis vel subpyramidatis, squarrosis vel erectis, atris vestito, peristomio subconico, fimbriato, brunneo; stipite subcylindraceo, 3-6 mm. longo latoque; floccis capillitii fasciatis, subfuscis 3-7 μ. latis; sporis globosis, verrucosis, brunneis, $3^1/_2$-4 μ.

Hab. ad terram pr. Cordoba Argentinæ (Hieronymus).

BOVISTA Dill. — Syll. VII, p. 96, IX, p. 273, XI, p. 164.

1. **Bovista Lauterbachii** P. Henn. in Engl. Jahrb. XVIII, 1894, 906
p. 36 *(Globaria)*. — Peridio subsphæroideo, sessili, radicato, papyraceo, persistente, osculo angusto dehiscente, 1-$1^1/_2$ mm. diam., squamulis farinosis, acutis, pallidis, secedentibus tecto, dein nudo, isabellino, nitido; capillitio laxo, subincarnato; sporis globosis, levibus, uniguttulatis, pallide incarnatis, longe pedicellatis, 4-5 μ.; pedicello hyalino, 8-11 μ. longo.

Hab. in silvis, Thursday-Island Australiæ.

2. **Bovista monticola** Speg. Contr. Fl. Sierra Ventana. 1896, p. 80. 907
— Parvula e globoso obovata 10-20 mm. alta, 8-16 mm. diam., flaccida, deorsum conico-turbinata, non v. vix plicatula, nodulose radicata; peridio tenuissime papyraceo, tenacello, cinereo-argenteo, sæpe obsolete vageve albo-maculato v. subleproso-furfuraceo, ostiolo, late irregulariterque dehiscente; gleba compactiuscula tabacina parietibus undique arcte adnata; basi sterili nulla; floccis tenuibus, 3-4 mm. crassis, asperulis; sporis globosis, levibus, 4 μ. diam., non v. vix apiculato-subcaudatis, chlorinis.

Hab. ad terram Sierra de la Ventana, Argentina.

3. **Bovista lateritia** Berk. in Herb. n. 4593; Bull. Lab. Nat. Hist. 908
Jowa III, n. 4, 1896, p. 216. — Peridio sessili, arrhizo, mycelio affixo, demum libero, cæspitoso, globoso v. pressione mutua plus minusve compresso, 2-4 cm. diam., glabro, tenaci, persistente, irregulariter aperto, lateritio; capillitio tomentoso, elastico, lateritio, sporis dense repleto: columella nulla; floccis sub lente pallide brunneis

longis, gracilibus, ramosis, 5-6 μ.; sporis rubescentibus, sub lente opacis, globosis, spinulosis, 5-6 1/4 μ.

Hab. ad terram in Nicaragua (Smith).

4. **Bovista cellulosa** Ell. et Ev. Proc. Acad. Philad. 1895, p. 414. 909
— Exoperidio 1-1 1/2 mm. crasso, levi; endoperidio depresso-globoso 1-1 1/2 cm. diam., coriaceo, extus griseolo, strato melleo favoso-celluloso, 1-2 mm. crasso vestito, strato celluloso membrana tenui griseo-lutea tecto; capillitio homogeneo, olivaceo, e floccis simplicibus v. parce ramosis, 3-4 μ. crassis, luteolo-hyalinis, composito; sporis numerosis, globosis, leviter asperulis, olivaceis, 3-4 μ diam.

Hab. ad terram, Colorado, Amer. bor. (Baker). — *B. circumscissæ* proxima.

5. **Bovista limosa** Rostr. Oest-Groenl. Svampe pag. 10. — Peridio 910
sphærico vel globuloso-depresso, breve radiculoso, membranaceo, pusillo, pisi magnitudine, 5-7 mm. diam., argenteo demum cervino, osculo fimbriato, basi radiculoso; cortice evanido maculasque albidas relinquente; capillitio castaneo-fusco, septato usque 7 μ. cr.: sporis flavo-olivaceis, globosis, 5,5-6,5 μ. diam., levibus nucleo centrali lætiori, pedicellatis pedicello 5-6 μ. longo.

Hab. inter muscos, ins. Röde in Groenlandia orient. (N. Hartz).

CALVATIA Fr. — Syll. VII, p. 105.

1. **Calvatia lejospora** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 911
1895, p. 39, tab. II, fig. 8. — Peridio magno, oblongo-obovoideo, basi crassa subtus plicata, radice tortili; cortice levi, continuo, tenuissimo, fragili, albido, reticulato; endoperidio crassiusculo, fragili, velutino, ochraceo, in maturitate supra mox in fragmenta dehiscente et decidente; subgleba peridii dimidium occupante, supra convexa ochracea; capillitio violaceo v. livido; floccis longissimis, 3 1/2 μ. crassis, parce ramosis; sporis globosis, levibus, 3 1/2-4 μ. diam., in cumulo violaceis v. lividis.

Hab. in pascuis, South Dakota Amer. bor. (Williams). — Peridium 6-9 cm. altum, 4-6 cm. latum.

2. **Calvatia hesperia** Morg. Journ. Cinc. Sc. Nat. Hist. XVIII, 1895, 912
p. 39, tab. II, fig. 9. — Peridio subgloboso v. obovoideo, plus minusve irregulari, 4-8 cm. diam., radice crassa tortili; cortice levi, albo, ab endoperidio non separabili; cortice et endoperidio peridium crassum tenax rigidum, diu persistens, demum dehiscens formantibus; subgleba obsoleta; capillitio compacto, firmo, sordide flavo, viridi-luteo v. ochraceo; floccis longissimis, vix ramosis, remote se-

ptatis, ad septa facile secedentibus, 4-10 μ. crassis; sporis globosis v. ovalibus, levibus, 4-5 μ. diam., sæpe pedicello minuto fultis, in cumulo viridi-luteis v. ochraceis.

Hab. ad terram sabulosam, California Amer. bor.

LYCOPERDON Tourn. — Syll. VII, p. 106, IX, p. 275, XI, p. 165.

1. **Lycoperdon Rollandii** Pat. ap. Roll. Bull. Soc. Myc. 1898, p. 81, t. IX, f. 7. — Solitarium, albidum, dein fusco-brunneum v. ochraceum, mediocre, obovatum, molle; peridio tenui membranaceo, superne rotundato-hemisphærico, verrucis brunneis, minutissimis, granulosis, simplicibus, confertis punctato, deorsum leviusculo, parce plicato, nitido, albido-fibroso radicante; osculo angusto irregulariter lacerato; gleba absque basi sterili, floccoso-pulverulenta, virescenti-flava, dein umbrino-fulva; floccis capillitii longissimis, tenellis, gracilibus; sporis levibus *ovoideis* 5-5,5 × 4-4,5 minute 1-guttatis, concoloribus. 913

Hab. ad terram graminosam sub Castaneis prope Corte in ins. Corsica. — Peridium 20 mm. alt., 15 mm. cr. A *Lyc. pusillo* præ ceteris sporis ovoideis diversum.

2. **Lycoperdon oviforme** Pat. Bull. Soc. mycol. 1898, p. 56. — Peridio obovato sursum acuminato, mediocri, albo, basi fibrillis albis, tenuibus, radicante, cortice granulis vel squamulis minutis ochraceis, rufulis dein nigrescentibus formato tecto; strato sterili obsoleto; gleba intense brunnea, pulverulenta; floccis capillitii sporisque æqualiter crassis fusco-brunneis; sporis globosis, levibus, 3-5 μ. diam. 914

Hab. gregatim inter muscos arborum Mexico. — Peridium 20-25 mm. alt. Affine *Lyc. acuminato* Bosc.

3. **Lycoperdon hanoiense** Pat. Journ. de Bot. 1897, p. 343. — Sparsum v. cæspitosum; peridio globuloso v. piriformi, 1-2 ½ cm. alto 8-15 mm. lato, subtus rotundato, circa medium in basim stipitiformem plus minusve plicatam contracto, ex albo griseolo, postremo ochraceo, verrucis minutissimis granulosis flavis tecto ideoque pulverulento v. furfuraceo, osculo minuto apicali irregulari dehiscente; basi sterili distincta, ½-1 cm.; gleba pulverulenta, fulvo-grisea; capillitii floccis hyalinis, cylindraceis, elongatissimis, flexuosis, 4-8 μ. crassis, acutatis; sporis ochraceis ellipticis, subtilissime asperulatis, 4-5 × 3 915

Hab. ad terram in Tonkin. — *L. furfuraceo* affine.

4. **Lycoperdon umbrino-fuscum** Pat. Bull. Boiss. 1895, p. 60. — Subglobosum, sessile, 2-4 cm. diam.; peridio membranaceo, deorsum 916

fusco plumbeo-nitenti, glabro, sursum umbrino, verrucis umbrinis, minutissimis, acutis, dense consperso, osculo angusto dehiscenti; gleba lanosa, fusco-umbrina; sporis globosis, levibus, brunneis, 4-5 μ. diam., hilo minuto suffultis; capillitio ex hyphis brunneis, ramosis, 5-6 μ. crassis composito; basi sterili umbrina, gossypina; bene evoluta.

Hab. ad terram pr. Quito Æquatoriæ (v. Lagerheim). — *L. hirto* et *L. atropurpureo* affine.

5. **Lycoperdon pisiforme** P. Henn. Engl. Jahrb. XXIII, p. 556. — Peridio subovoideo, pisiformi, sessili, persistente, cortice papyraceo, niveo flavescente, subnitente, 3-5 mm. diam.; gleba flava; sporis globosis, $2\,^1/_2$-$3\,^1/_2$ μ. diam., episporio levi, hyalino subflavescente; capillitio laxo, hyalino flavescente; mycelio submembranaceo, candido, nitente. 917

Hab. ad culmos emortuos in Camerunia (Zenker).

6. **Lycoperdon alpigenum** Ell. et Ev. Proc. Acad. Philad. 1895, p. 414. — 2 cm. circiter diam.; peridio coriaceo, circiter 1 mm. crasso, extus brunneo, supra rimoso-squamuloso; capillitio rudimentali; floccis paucis, 6-10 μ. diam., parce ramosis, luteo-brunneis, exappendiculatis; basi sterili partem tertiam peridii occupante, pallide luteola; sporis globosis, sublevibus, $3\,^1/_2$ μ. diam., breve pedicellatis. 918

Hab. ad terram prope trabes, Colorado, Amer. bor. (Crandall).

7. **Lycoperdon Bellii** Peck, Bull. Torr. Bot. Club. 1895, p. 209. — Peridio circiter 5 cm. lato, subgloboso, sessili, luteolo v. luteolo-brunneo; peridio exteriori continuo, verrucis numerosis, persistentibus, duris, angulosis, irregularibus v. substellatis, basim versus minoribus ornato, in maturitate a peridio interiore secedente; peridio interiori tenuiore, pallidiore, glabro; capillitii filamentis longis, gracilibus, intricatis, dilute tinctis, interdum ramosis; sporis globosis, olivaceo-brunneis, $6\,^1/_4$-$7\,^1/_4$ μ. diam. 919

Hab. ad terram rupestrem Hudson's Bay, Amer. bor. (Macoun).

8. **Lycoperdon dryinum** Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, p. 39, tab. II, fig. 10. — Peridio globoso, sessili, mycelio fibroso; exoperidio tenui, e squamis minutis albis, interdum brunneo-tinctis, in superficie glabra nitida endoperidii in verrucas minutas persistentes brunneas v. nigrescentes mutatis formato; gleba obsoleta; capillitio viridi-luteo, dein brunneo-olivaceo; floccis ramosissimis, sporarum crassitie, ramis longis tenuioribus attenuatis; sporis globosis, levibus, $3\,^1/_3$-4 μ. diam., sæpe pedicello minuto fultis. 920

Hab. ad folia putrida in silvis, Ohio Amer. bor.

9. **Lycoperdon constellatum** Fr., Syll. VII, p. 127. — Var. **groenlandicum** P. Henn. in Allescher et P. Hennings, Pilze aus dem Umanakdistrikt. 1897, p. 2. — Peridio obovoideo, in stipitem brevissimum angustato, 15-18 mm. alto latoque; cortice exteriori areolato, e verrucis paullum elevatis, angulatis, 2-5 mm. diam., aculeis plus minusve numerosis brevissimis obsitis; cortice interiori dein retiformi; capillitio laxo, cinnamomeo, floccis simplicibus, ligulatis, 4-6 μ. crassis; sporis globosis, flavo-brunneolis, $4^1/_2$-5 μ., episporio subtiliter punctato; pedicello tenui, hyalino, 5-6 μ. longo, facile deciduo. 921

Hab. ad terram pr. Karajak-Nunatak Groenlandiæ (Vanhöffen). 922

10. **Lycoperdon monstruosum** Arcang. Bull. Soc. bot. Ital. 1896, p. 188. — Peridio 4 cm. lato, circiter 2 cm. alto, inferne late cuneato, superne cruciatim inciso, quadrilobo, cortice crassiusculo, albido, lutescente, irregulariter ruguloso; capillitio molli, umbrino; sporis ovoideis, 5 × 4, uniguttulatis.

Hab. ad terram, Tun-juen-fan in China.

11. **Lycoperdon longicaudum** P. Henn. Engl. Jahrb. XXIII, p. 556. — Peridio longistipitato, persistente, carnoso, clavato, turbinato, vertice late applanato vel concavo (an primitus?), 4-7 cm. lato, cortice papyraceo, atro-olivaceo, levi glabroque; stipite cylindraceo, spongioso, farinaceo, 4-7 cm. longo, $1^1/_2$-2 cm. crasso; capillitio filiformi, flavo-brunneo, levi, 3-4 μ. crasso; sporis globosis, levibus, intus punctulatis, flavo-fuscis, 3 μ. diam. 923

Hab. in foliis deciduis in Camerunia (Zenker).

12. **Lycoperdon pampeanum** Speg. Contr. Fl. Sierra Ventana 1896, p. 80. — Parvulum, globoso-depressum, 20-30 mm. diam., 15-25 mm. altum, inferne turbinato-applanatum, puncto minuto vix radicatum, distincte marginatum, superne subhemisphæricum, centro osculo minuto subrotundo perforatum; peridio tenui papyraceo-tenacello, subflaccido, extus obscure sordideque fusco-cinerescente, inferne sæpius pallidiore atque subnitenti, non v. vix subplicato; basi sterili externe etiam manifestissima, late discoideo-lenticulari, 6-10 mm. crassa ad centrum, grosse celluloso-spongiosa fusco-subtabacina, a gleba pellicula plumbea levissima subnitenti divisa; gleba sordide cinereo-fusca, a basi sterili discreta, parietibus peridii plus minusve adnata, flocculoso-gossypina; sporis globosis, 4 μ. diam., levibus, fuscis, ecaudatis. 924

Hab. in graminosis Sierra de la Ventana, Argentina.

13 **Lycoperdon pileolatum** Kalchbr. ap. Mc Alp. Arrang. Austral 925
Fungi 1893, p. 96. — Peridio globoso opaco, deorsum umbrino, concavo, nucis avellanæ magnitudine; stipite exiguo.

Hab. ad terram, N. S. Wales Australiæ.

14. **Lycoperdon pertusum** Berk., Syll. VII, p. 133 et **L. pertusum** Sow., Syll. VII, p. 483, verisimillime speciem unicam (dubiam) respiciunt.

CLAVOGASTER P. Henn. Hedw. 1896, p. 303 cum fig. (Etym. *clavus* et *gaster*, quasi gasteromyces clavatus). — Peridium subcoriaceum, persistens e stratis binis discoloribus efformatum, clavatum, stipitatum. Capillitium subfasciatum in cellulas favosas, polyhedras; sporis levibus, ellipsoideis, coloratis, pedicellatis. *Hippoperdo* peraffinis.

1. **Clavogaster novo-zelandicus** P. Henn. l. c. — Stipitatus, clava- 926
tus; peridio fusiformi, vertice subacutato, longitudinaliter substriato, sicco subrugoso, flavo-olivascente vel brunneolo, ca. 2-2 $^1/_2$ cm. longo, 1 cm. lato; stipite farcto tereti vel subcompresso, flavo-subaurantiaco, 10-12 mm.; gleba favosa, cellulis numerosis excavatis cinnamomeis, penta- vel hexagonis; sporis ellipsoideis, oblongis, flavis subfuscidulis levibus, pedicellatis, 13-15 × 7-8, pedicello hyalino, 3-8 μ., longo; floccis hyalinis, fasciatis, 4-8 μ. crassis.

Hab. ad terram Ohampo Novæ Zelandiæ (Haeusler). — Habitu externo *Clavariam pistillarem* in mentem revocat.

CORDITUBERA P. Henn. Engl. Jahrb. XXIII, p. 557 c. fig. (Etym. *cor* et *tuber*). — Peridium carnosum, tuberiforme, durum, leve, glabrum, tenuiter corticatum, intus farctum, reticulato-venosum; basidia subclavata, 4-sterigmatica; sporæ globosæ, aculeatæ, hyalino-coloratæ, stipitatæ.

1. **Corditubera Staudtii** P. Henn. l. c. — Peridio carnoso, cordifor- 927
mi, duro, firmo, medio sulcato, 5 cm. longo latoque, 2-2 $^1/_2$ cm. crasso, cortice tenui, levi, glabro, dein meandriformi rimoso, primo pallido, dein sanguineo, intus carnoso, farcto, duro, venoso-reticulato, e pallido rubescente; basidiis subclavatis v. oblongis, 4-sterigmaticis; sporis globosis, dense echinatis, hyalino-fuscescentibus, 9-13 μ. diam.; aculeis 1-1 $^1/_2$ μ. longis, sterigmatibus 4-5 μ. longis.

Hab. ad terram in spelunca in Camerunia (Staudt).

SCLERODERMA Horn. — Syll. VII, p. 134, IX, p. 278, XI, 167.

1. **Scleroderma dictyosporum** Pat. Bull. Soc. Myc. de Fr. 1896, p. 133. 928

tab. IX, fig. 1. — Peridio subgloboso, attenuato, coriaceo, fusco-brunneo, 1 mm. crasso, sursum dense papillis atris, minutis obsito, deorsum breviter radicato; gleba atra, floccis albis marmorata; sporis umbrinis, globosis, 8-12 μ. diam., limbo hyalino, alveolato-reticulato, 2-4 μ. crasso cinctis; floccis hyalinis, mollibus, cylindraceis, rectis v. tortuosis, 3-10 μ. latis, simplicibus vel furcatis.

Hab. ad terram arenosam in Guinea gallica (Dybowski).

2. **Scleroderma pisiforme** P. Henn. Fungi camerun. I in Engl. Jahrb. XXII, 1895, p. 110. — Peridio subcoriaceo-papyraceo, subgloboso v. ovoideo-piriformi, stipitato, sæpe aggregato confluentique, 2-3 mm. diam., aurantiaco, farinaceo-subpunctato; stipite compresso, interdum sulcato, radiato, concolori, e mycelio repente, ramoso, flavo oriente; gleba compacta, brunneo-violacea, deinde atra; floccis subhyalinis; sporis globosis, primo levibus, subflavis, 1-guttulatis, deinde dense aculeato-verrucosis, atrorufis, 6-7 μ. 929

Hab. ad terram sub foliis, Kamerun (Zenker et Staudt).

PHELLORINA Berk. — Syll. VII, p. 145, IX, p. 279, XI. p. 167.

1. **Phellorina Saharæ** Pat. et Trab. Bull. Sac. Myc. de Fr. 1896, p. 151, tab. X. — Peridio globoso-depresso, 7 cm. lato, omnino levi, glabro, coriaceo-membranaceo, fragili, pallide rufo (in sicco); stipite erecto, 7-8 cm. longo, 12 mm. crasso, subcylindraceo, basi bulboso, squamis rigidis parce vestito, corneo-rigido, undique farcto; gleba ochracea, capillitio subnullo; sporis globosis, levibus, pallidissime ochraceis, 5-6 .. latis. 930

Hab. ad terram ad Fort Lallemant Saharæ.

Fam. 4. Hymenogastraceæ Vitt.

OCTAVIANIA Vitt. — Syll. VII, p. 158, IX. p. 280, XI, p. 169.

1. **Octaviania Hesseana** Sacc. et Syd. Sic nominanda est *Octaviania mutabilis* Hesse, Sacc. Syll. XI, p. 169, quum exstet præcedens *O. mutabilis* Roum., Sacc. Syll. VII, p. 159.

RHIZOPOGON Fr. — Syll. VII, p. 161, IX, p. 280, XI, p. 170.

1. **Rhizopogon Rodwayi** Mc. Alp. Agr. Gaz. Sydney. 1895, p. 11, Novbr. p. 4, fig. 1-5. — Oblongus, tuberiformis, irregularis, atro-brunneus, 4 cm. longus, 2-2 $^1/_2$ cm. latus; peridio gelatinoso, hyalino; mycelii fibrillis inferne radiciformibus tenuibus, superne 931

ramosis, applicatis, superficiem peridii in sectiones mycelio delicato albo limitatas, dividentibus; gleba compacta, ochracea; cellulis numerosis, minutis, sinuosis; basidiis longis, irregularibus, cylindraceis; sporis 6 in quoque basidio, levibus, hyalinis, ellipticis, 3 × 1.

Hab. sub terra. Tasmania Australiæ (Rodway).

GAUTIERA Vitt. — Syll. VII, p. 177.

1. **Gautiera Otthii** Trog ap. Otth Mitth. natur. Gesell. Bern., p. 43. — 932
Peridio subrotundo, 2-3 cm. diam., basi radicula prædito; loculis numerosis elongatis, sinuosis, minutis, sed sub vitro debili conspicuis, æqualiter sparsis etiam peripherice; sporis ovoideis, brunneis, minute granuloso-guttulatis; odore debili, non grato.

Hab. ad terram in Hardlisberg Helvetiæ (Otth).

UREDINACEÆ Brongn.

Syll. VII, p. 449, IX, p. 282, XI, p. 174.

Sect. 1. Amerosporæ

UROMYCES Link — Syll. VII, p. 531, IX, p. 291, XI, p. 174.

1. **Uromyces obscurus** Diet. et Holw. Bot. Gaz. 1897, p. 24. — Æci- 933
diis hypophyllis, sparsis, epidermide tectis, dein erumpentibus, pseudoperidiis carentibus, applanatis, aurantiacis; æcidiosporis flavescentibus, globosis v. ellipticis, 17-25 × 17-20, levibus; uredo- et teleutosporis in soris atris intermixtis, amphigenis; uredosporis globosis v. ellipticis, 20-30 × 20-25, subferrugineis, echinulatis; teleutosporis ellipticis, ovatis v. globosis, 27-38 × 23-27, castaneis, apice late et pallide brunneo-papillatis v. cucullatis; pedicello caduco, teleutosporam æquante vel eam superante.

Hab. in foliis, pedunculis caulibusque vivis Phaseoli, Cuernavaca, Tula et Guadalajara, Mexico (Holway).

2. **Uromyces splendens** Blytt, Christiania Vid. Selsk. Forh. 1896, 934
n. 6, p. 39. — Æcidiis præsertim in foliorum pagina inferiore, sæpe supra totam superficiem æqualiter distributis, iis *U. lapponici* fere duplo majoribus; spermogonia, quæ in *U. lapponico* adsunt, in hac specie desunt; æcidiosporis 19-21,6 × 13,5-16,2, iis *U. lapponici* majoribus; teleutosporis soros sparsos parvos rotundatos in utraque foliorum pagina formantibus, rotundatis v. ovali-ellipticis, 21,6-27 μ. latis, levibus v. versus apicem subscabris, breviter pedicellatis.

Hab. in foliis Astragali oroboidis, Dovre, Norvegia.

3. **Uromyces tenuistipes** Diet. et Holw. Bot. Gaz. 1897, p. 25. — 935
Soris minutis, hypophyllis, sparsis, maculas rubras in pag. superiore formantibus; soris uredosporiferis brunneis; uredosporis globosis v. ellipticis, 21-24 × 18-22, pallide brunneis, echinulatis; soris teleutosporiferis nigris; teleutosporis plerumque globosis, 22 μ. diam., episporio crasso, apice minute depresso, vix incrassato; pedicello longissimo, tenui, caduco.

Hab. in foliis vivis Desmodii spec., Esclava Mexico (Holway).

4. **Uromyces orbicularis** Diet. Hedw. 1897, p. 28. — Maculis flavis, 936
orbicularibus; pseudoperidiis hypophyllis, 3-20 dense gregariis cupuliformibus, margine recto; æcidiosporis globosis v. late ellipticis, 17-20 μ. diam., minute verruculosis; soris teleutosporiferis epiphyllis, æcidiis oppositis, minutis, circulariter dispositis, confluentibus, castaneis; teleutosporis ellipticis v. ovoideis, rarius globosis, verrucosis, castaneis, apice papilla lata conica ornatis, 20-28 × 18-21, pedicello hyalino caduco suffultis.

Hab. in foliis vivis Desmodii speciei cujusdam, Serra Geral Brasiliæ (Ule).

5. **Uromyces mexicanus** Diet. et Holw. Bot. Gaz. 1897, p. 24. — 937
Soris hypophyllis v. caulicolis; maculis inconspicuis, fuscis v. flavis, sæpe nullis; soris uredosporiferis sparsis vel irregulariter aggregatis, cinnamomeo-fuscis; uredosporis late ellipticis v. globosis, 18-23 × 17-21, pallide fuscis, echinulatis; soris teleutosporiferis pulvinatis, atris, nudis, in foliis parvis, in pedunculis caulibusque majoribus et elongatis; teleutosporis ovatis, rare subglobosis, apice incrassatis, sæpe conico-mamillatis, 23-30 × 18-22, levibus, castaneis; pedicello hyalino, tenui, usque ad 100 μ. long., basim versus attenuato.

Hab. in foliis, pedunculis caulibusque vivis Desmodii cujusdam, Mexico (Holway).

6. **Uromyces rostratus** P. Henn. Hedw. 1896, p. 227. — Soris hy- 938
pophyllis, sparsis, rotundato pulvinatis ochraceis vel subcinnamomeis ca. 1 mm. diametro, epidermide papillato-velata cinctis; teleutosporis subclavatis vel oblongis, hyalinis vel pallide flavescentibus, 26-35 × 13-18, apice apiculato-rostratis, rostro usque ad 10 μ. longo, curvulo vel recto, hyalino, episporio levi, hyalino vel subfuscidulo; pedicello tenui, hyalino curvato vel recto, 15-28 × 2-3.

Hab. in foliis vivis Eriosematis pr. Rio de Janeiro Brasiliæ (Ule).

7. **Uromyces albus** (Clint.) Diet. et Holw. Hedw. 1897, p. 297. — 939
Æcidium album Clint. in Peck 26 Rep. St. Mus. p. 76. Ellis, North Amer. Fungi n. 1431. — Maculis nullis; pseudoperidiis sparsis, brevibus, altis, margine subintegro; æcidiosporis subglobosis, circiter 20 μ. diam., hyalinulis; soris teleutosporiferis caulicolis, minutis, oblongis, epidermide tectis, atris; teleutosporiferis ovoideis subglobosis v. irregularibus, 27-35 × 19-27, episporio subtilissime punctato-striolato, apice modice incrassato, castaneo indutis, breviter pedicellatis.

Hab. in foliis caulibusque vivis Viciæ americanæ, Buffalo (Clinton), Nipigon River (Ellis), Mariposa Co. (Blasdale) Amer. bor.

8. **Uromyces Johowii** Diet. et Neg. Engl. Jahrb. XXII, p. 349. — 940
Æcidiis amphigenis, solitariis vel paucis consociatis, maculis flavescentibus insidentibus, minutis, 0,4 mm. latis, 0,3 mm. altis; pseudoperidiis apertis, margine reflexo, caduco, albido; æcidiosporis intense flavis, polyhedricis v. oblongis, 22-28 × 20-22, membrana hyalina, subtiliter verrucosa præditis; soris teleutosporiferis epiphyllis per totam foliolorum superficiem sparsis, minutis, pulveraceis, obscure fuscis; teleutosporis ellipticis v. globosis, 33-40 × 24-30, castaneis, apice mitra plerumque clariore ornatis, verruculosis; pedicello brevi, hyalino, caduco.

Hab. in foliis vivis Viciæ nigricantis pr. Concepcion et in valle a latere fluminis Biobio sita, Chile (Neger).

9. **Uromyces Neurocarpi** Diet. Hedw. 1895, p. 292. — Soris maculis 941
rufo-brunneis insidentibus, amphigenis, minutis, solitariis v. paucis aggregatis; soris uredosporiferis brunneis; uredosporis globosis v. ovoideis, 25–31 × 20-26, luteo-brunneis, echinulatis; teleutosporis ovoideis usque fusiformibus, utrinque angustatis, levibus, pallide brunneolis, membrana tenui, 28–45 × 13-19, pedicello sporam subæquante, hyalino.

Hab. in foliis Neurocarpi cajanifolii Bahia, Brasilia.

10. **Uromyces foveolatus** Juel, Bih. K. Svenska Vet.-Akad. Handl. 942
XXIII, Afd. III, n. 10, 1897, p. 16 extr. tab. IV, f. 29, 30. — Soris minutis, amphigenis, sparsis, maculas non formantibus, uredosporiferis castaneis, teleutosporiferis atris; uredosporis rotundatis, 26 × 22, membrana flavo-brunnea aculeolata, poris 4 æquatorialibus instructa; teleutosporis rotundatis, circiter 22 μ. diam. vel ellipsoideis, membrana crassa obscure castanea, foveolis minutis ubique creberrime impressa, apice modice incrassata.

Hab. in foliis Bauhiniæ, Cuyaba, Matto Grosso in Brasilia (Malme).

11. **Uromyces Bauhiniæ** P. Henn. Hedw. 1895, p. 90 — Maculis fu- 943
scis v. obsoletis; soris amphigenis, minutis, sparsis v. gregariis confluentibusque, atris, pulverulentis; uredosporis subglobosis v. ellipsoideis, flavo-fuscidulis, 18-26 × 16–26, episporio aculeato; teleutosporis intermixtis, subglobosis, ovoideis v. ellipsoideis, atro-castaneis, breviter pedicellatis, 21-26 × 18-23, intus granulatis; episporio sublevi, 4-5 μ. crasso; pedicello brevi, hyalino.

Hab. in foliis vivis Bauhiniæ, Prov. Minas Gerës Brasiliæ (Ule). — Differt ab *Uromycete Dieteliano* Pazschke sporis vertice non incrassatis.

12. **Uromyces goyazensis** P. Henn. Hedw. 1895, p. 89. — Caulicola; 944
soris gregariis, confluentibus effusisque pulvinato-explanatis, pulverulentis, castaneis; teleutosporis piriformibus, ellipsoideis v. ovoideis, levibus, vertice non incrassatis nec papillatis, rotundato-obtusis, brunneis, 18-30 × 16-24, pedicello gracili, hyalino, usque ad 80 μ. longo, 4-5 μ. crasso.

Hab. in ramis inflorescentiæ Bauhiniæ pr. Meiaponte Brasiliæ (Ule).

13. **Uromyces Glycyrrhizæ** (Rabh.) Magn.-Syll. IX, p. 292. — Var. 945
argentina P. Henn. Hedw. 1896, p. 227. — Soris hypophyllis sparsis pustulatis, dein epidermide rupta cinctis, subcinnamomeis; uredosporis subglobosis minute verrucosis, læte brunneis, 25-30 × 23-28; teleutosporis intermixtis, oblongis, ellipsoideis, ovoideis vel subglobosis, læte brunneis, apice interdum incrassatis, minute papillatis vel sublevibus, 28-35 × 24-22, episporio 2-3 μ. crasso, rufo-brunneo; pedicello brevi, fragili, hyalino.

Hab. in foliis caulibusque vivis Glycyrrhizæ astragalinæ, Prov. de Mendoza Argentinæ (Kurtz).

14. **Uromyces ellipticus** Diet. et Neg. Engl. Jahrb. XXII, p. 350. 946
— Spermogoniis per totam inferiorem paginam foliorum dispersis, ovoideis v. conoideis, circiter 0,12 mm. latis; soris uredosporiferis eadem distributione qua spermogonia, mediocribus, confluentibus, castaneis; uredosporis globosis, 28-33 μ. diam., flavo-brunneis, echinulatis; teleutosporis late ellipticis vel ovoideis, 28-36 × 25-29, apice papilla lata, humili, concolore ornatis, episporio minute reticulato castaneo præditis; pedicello brevi, fragili.

Hab. in foliis vivis Glycyrrhizæ astragalinæ variis locis reipublicæ chilensis (Neger).

15. **Uromyces elegans** (Berk. et Curt.) Lagh. Ured. herb. Fries. 1895, 947
p. 34, *Æcidium elegans* B. et C., in Ravenel, Fung. Carol. n. 188; *Uromyces Trifolii* Har. Urom. Lég. p. 12 ex p. — Æcidiis hypophyllis, sparsis, cupuliformibus, brevibus, ore recurvato; æcidiosporis angulato-rotundatis, 16-18 μ. diam., membrana tenui, achroa, æquabili crassitudine, verruculosa, contentu aurantiaco; soris uredosporiferis et teleutosporiferis hypophyllis, sparsis, non confluentibus, parvis, obscure brunneis, pulveraceis; uredosporis ovoideo-rotundatis, circiter 22 μ. diam., membrana tenui, pallide

luteola, aculeata, ad poros germinationis quaternos leniter incrassata; teleutosporis basi lata ovoideis, 24–28 × 16-20, membrana æquabili crassitudine, fusca, cymatiis longitudinalibus (ut in *U. striato* Schröt.) ornata, pedicello hyalino, caduco.

Hab. in foliis vivis Trifolii Caroliniani in S. Carolina Amer. bor. (Ravenel).

16. **Uromyces clavatus** Diet. Hedw. 1897, p. 27. — Æcidiis in acervulos irregulares dense gregariis, pseudoperidiis margine subintegro, albo; æcidiosporis irregulariter polyhedricis vel oblongis, 20–25 × 13-20, minute verrucosis; soris uredosporiferis minutis, sparsis, cinnamomeis; uredosporis globosis vel late ellipticis 23-29 × 21-25, membrana crassa, flavo-brunnea, breviter echinulata et poris germinationis numerosis manifestis perforata præditis; soris teleutosporiferis mediocribus, pulvinatis, firmis, cinnamomeis vel albentibus; teleutosporis clavatis vel fusiformibus, pallide fuscis, levibus, membrana tenui, apice pallidiore et in formam papillæ incrassata indutis, 32-45 × 15–20, statim post maturitatem germinantibus; pedicello valido, ca. 40 μ. longo. 948

Hab. in foliis, caulibus atque calycibus Lathyri magellanici, Prov. Serra Geral Brasiliæ (Ule).

17. **Uromyces chilensis** Diet. et Neg. Engl. Jahrb. 1897, p. 154. — Æcidiis confertis, in acervulos irregulares rotundatos v. oblongos in foliorum pagina inferiore et in cirris congestis, margine reflexo, inciso, flavo; æcidiosporis ellipticis v. polyhedricis, 21-27 × 19-22, subtiliter verrucosis, aurantiacis; soris uredosporiferis amphigenis, sparsis, minutis, epidermide rupta cinctis, cinnamomeis; uredosporis subglobosis v. late ellipticis, 30–33 × 27–30, episporio 3-3 $^1/_2$ μ. crasso, castaneo, echinulato et poris 8–10 perforato instructis. Status teleutosporiferus adhuc ignotus. 949

Hab. in foliis vivis Lathyri magellanici et L. multicipitis in Chile (Neger). — Uredosporis majoribus a speciebus affinibus diversus.

18. **Uromyces Arachidis** P. Henn. Hedw. 1896, p. 224. — Maculis subflavis vel nullis; soris amphigenis gregariis vel sparsis, minutis, ochraceis, primo epidermide inflata tectis dein liberis; teleutosporis subglobosis, ellipsoideis vel ovoideis, læte brunneis, 22–28 × 20–26 episporio cinnamomeo, tenui sublevi vel minute verrucoso; pedicello fragili, hyalino, brevi. 950

Hab. in foliis Arachidis hypogææ in Surinam (Weigelt).

19. **Uromyces Cajaponiæ** P. Henn. Hedw. 1896, p. 226. — Soris hy- 951

pophyllis sparsis, rotundato-pulvinatis, cinnamomeis, pulverulentis, 1-1,5 mm. diam. teleutosporis subglobosis vel late ellipsoideis, brunneis, 28-36 × 26-32, raro 36-40 μ., episporio atrocinnamomeo, dense verrucoso, 3-4 μ. crasso.

Hab. in foliis Cajaponiæ in prov. St. Catharina Brasiliæ (Ule).

20. **Uromyces rosicola** Ell. et Ev. Americ. Natur. 1897, p. 427. — 952
Soris teleutosporiferis hypophyllis, castaneis, totam foliorum paginam inferiorem occupantibus confluentibusque. primo epidermide tectis, mox nudis; teleutosporis globosis v. obovatis, 20-35 μ. long. diam., episporio crasso, grosse tuberculoso; pedicello firmo, sporam æquante.

Hab. in foliis Rosæ Fendleri in Nebraska Amer. bor. (Bates).

21 **Uromyces quitensis** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 213. — 953
Soris hypophyllis, nervincolis, parvis, confluentibus, epidermide non tectis, firmis, aurantiacis, maculis magnis luteis insidentibus; sporis fusiformibus, 60-66 × 12-16, apice et basi attenuatis, membrana achroa, tenui, levi, apice non incrassata, contentu aurantiaco; pedicello hyalino persistenti.

Hab. in foliis Rubi sp. pr. Quito in Æquatoria.

22. **Uromyces Lagerheimii** Sacc. et Syd. *Uromyces andinus* Pat. Bull. 954
Soc. Myc. de Fr. 1895, p. 213, nec Magn. — Soris hypophyllis, subcongregatis, minimis, aurantiacis, epidermide non tectis; uredosporis rotundatis, 21-27 μ. diam., membrana achroa, echinulata, contentu aurantiaco; teleutosporis claviformibus, apice obtusis, 45–51 × 12-18, quam primum germinantibus, membrana achroa, levi, apice incrassata, contentu aureo; pedicello hyalino, brevi

Hab. in foliis Rubi sp. pr. Quito in Æquatoria.

23. **Uromyces Shiraianus** Diet. et Syd. Hedw. 1898, p. 213. — Soris 955
amphigenis sparsis, minutis, nudis pulveraceisque; uredosporis ellipticis, apice acuminatis, 35-48 × 21-30, castaneis, lineis spiralibus e verrucis compositis ornatis; teleutosporis lenticulari-sphæroideis v. disciformibus, 25 μ. longis, 32-37 μ. latis. episporio opaco-brunneo verrucoso indutis, pedicello ca. 30 μ. longo hyalino suffultis.

Hab. in foliis Rhois silvatici, Tokyo Japoniæ (Shirai). — *U. brevipedi* valde affinis, sed præcipue uredosporis mox dignoscitur.

24. **Uromyces Mulini** Schroet. Hedw. 1896, p. 224, Engl. Jahrb. 1897, 956
p. 154. — Æcidiis in parvos acervulos in pagina inferiore foliorum congestis; pseudoperidiis ex epidermide crateris modo sublevata erumpentibus, deciduis; æcidiosporis irregulariter polyhedricis

24-30 × 24-48, minute verrucosis; soris uredosporiferis amphigenis, pulvinatis oblongis primo epidermide tectis, vesiculosis dein pulverulentis cinnamomeis; uredosporis ellipsoideis vel ovoideis, 24-35 × 22-26, episporio incrassato ochraceo, aculeato; soris teleutosporiferis atro-brunneis; teleutosporis subglobosis vel ovoideis, vertice rotundatis, 28-34 × 24-30; episporio atrocastaneo, vertice incrassato, levi; pedicello usque ad 30 μ. longo, ad apicem brunneolo, persistente.

Hab. in foliis vivis Mulini integrifolii, Prov. de San Juan pr. Las Caves Argentinæ (Echegaray), in fol. Mulini spinosi et Azorellæ spec. in Chile (Neger).

25. **Uromyces Scleranthi** Rostr. Bot. Tidsskr. 1897, p. 40. — Soris 957
sparsis minutis, orbicularibus v. oblongis, dilute fuscis, diu epidermide tectis; uredosporis flavo-fuscis, globosis, 15-22 μ. diam. vel oblongis, 24-25 × 18-20, episporio spinuloso instructis; teleutosporis raris, uredosporis immixtis, piriformibus v. oblique ellipsoideis, rufo-fuscis, apice papilla lata incrassatis, 23-24 × 19-24, pedicello hyalino deciduo fultis.

Hab. in caulibus, foliis calycibusque Scleranthi perennis in Jütlandia Daniæ.

26. **Uromyces Suksdorfii** Diet. et Holw. Erythea 1895, p. 77. — Soris 958
amphigenis sparsis, minutis, atro-brunneis, pulverulentis; uredosporis ellipticis, dense verrucosis, brunneis, 25-28 × 18-20; teleutosporis ellipticis, obovatis v. sphæricis, aureo-brunneis, dense verrucosis, apice papillatis 25-32 × 23-25, pedicello brevi caduco fultis.

Hab. in foliis Silenis Oreganæ, Washington Amer. bor. (Suksdorf).

27. **Uromyces pulchellus** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 57. 959
— Soris teleutosporiferis sparsis v. circinatis, plerumque hypophyllis, minutis, $^1/_2$ mm., nudis, subatris; teleutosporis obovatis v. ellipticis, demum castaneis, 22-28 × 18-22, episporio levi, crassiusculo, apice rotundato modice incrassato; pedicello 35-50 μ. longo, firmo, hyalino.

Hab. in foliis petiolisque Silenes? spec., Washington Amer. bor.

28. **Uromyces Melandryi** Diet. et Neg. Engl. Jahrb. 1897, p. 154. — 930
Æcidiis solitariis v. in acervulos mediocres consociatis, maculis flavis insidentibus; pseudoperidiis tubiformibus, usque ad 1 mm longis; æcidiosporis aurantiacis, polyhedricis, ellipticis v. subglobosis, 18-25 × 15-20, subtiliter verrucosis; soris uredosporiferis amphige-

nis, solitariis v. circulariter circa sorum centralem dispositis, minutis, epidermide fissa cinctis, cinnamomeis, pulveraceis; uredosporis ellipticis, 25-33 × 23-28, brunneis, densissime minuteque verruculosis; soris teleutosporiferis eadem distributione qua uredosporiferi, atris, circularibus, $^1/_5$–1 mm. diam.; teleutosporis ellipticis, globosis v. ovoideis, 28-40 × 22-29, castaneis, apice incrassatis (6-9 μ.), pedicello firmo, longissimo, usque ad 120 μ., hyalino suffultis.

Hab. in foliis petiolisque vivis Melandryi cucubaloidis in alta Cordillera, Chile (Neger).

29. **Uromyces Lychnidis** Tracy et Earle Proc. Californ. Acad. V, 1895, p. 729. — Maculis indefinitis; pseudoperidiis hypophyllis, irregulariter aggregatis, brevibus, irregulariter rumpentibus; æciosporis irregulariter subglobosis, 15-18 μ. diam., episporio levi, contentu dilute luteo; soris uredosporiferis et teleutosporiferis amphigenis, plerumque epiphyllis, sparsis, subrotundis, nigris v. obscure brunneis, epidermide rupta cinctis; uredosporis globosis, dilute luteis, minute echinulatis, 12-14 μ. diam.; teleutosporis ovatis, obscure brunneis, in longitudine rugosis, circiter 15–20 μ., episporio apice non incrassato; pedicello sporam æquante, hyalino, fragili. 961

Hab. in foliis Lychnidis Drummondii, Utah Amer. bor.

30. **Uromyces Gypsophilæ** Cke., Sacc. Syll. VII, p. 577 (Diagn. incompl.). — Uredosporis plus minusve ovatis, episporio verrucoso, membrana pallida, 15-30 × 10-18, 2 poros gerentibus; soris teleutosporiferis hypophyllis v. caulicolis, orbicularibus, confluentibus, opulentissime pulverulentis, atro-fuscis, magnis; teleutosporis subglobosis, intense fuscis, 25-27 μ. (15-25 × 13-20), episporio verruculoso; pedicello evanido. 962

Hab. in foliis caulibusque Gypsophilæ paniculatæ, Cherson Rossiæ.

31. **Uromyces Galphimiæ** Diet. et Holw. Bot. Gaz. p. 25. — Soris amphigenis, parvis, sparsis, nudis; soris uredosporiferis cinnamomeis; uredosporis obovatis v. ellipticis, 28-36 × 22-32, membrana pallide fusca, breviter echinulata, contentu aureo; soris teleutosporiferis atris; teleutosporis ovatis, ellipticis v. subglobosis, apice minute obtuseque attenuatis, 35-45 × 23-33, episporio castaneo, dense verrucoso, apice incrassato; pedicello teleutosporam superante caduco. 933

Hab. in foliis vivis Galphimiæ Humboldtianæ, Guadalajara, Mexico (Holway).

32. **Uromyces Asperulæ** Mc Alp. Agr. Gaz. Sydney. VI, 1896, p. 2, 964

fig. 1-3. — Soris uredosporiferis minutis, bullatis, per epidermidem erumpentibus, fuligineis, hypophyllis; uredosporis globosis, subglobosis v. ovatis, echinulatis, aurantiacis, 20-22 × 17-20; soris teleutosporiferis caulicolis, elongato-ovalibus, atro-brunneis, confluentibus, epidermidem rumpentibus; teleutosporis flavo-brunneis usque castaneis, levibus, pedicellatis, ovalibus, ovatis, ellipticis v. late clavatis, apice valde incrassatis rotundatisque, 28-36 × 14-17; pedicello longo, persistente, hyalino, 30-45 μ. longo.

Hab. in foliis et caulibus Asperulæ oliganthæ, Victoria Australiæ.

33. **Uromyces tener** Schroet. Hedw. 1896, p. 225. — Maculis fuscis, 965
rotundatis; soris teleutosporiferis hypophyllis plerumque orbiculariter dispositis, punctiformibus atris, pulvinatis; teleutosporis ellipticis subglobosis, ovoideis vel piriformibus, 20-25 × 12-16, vertice rotundatis, episporio pallide ochraceo, levi, 2 μ. crasso, pedicello persistente, 25 μ. longo, 2,5 μ. crasso, hyalino vel subfuscidulo.

Hab. in foliis Manettiæ gracilis, Serra de Oratorio Brasiliæ (Ule).

34. **Uromyces Borreriæ** P. Henn. Hedw. 1896, p. 227. — Soris hypo- 966
vel epiphyllis in maculis brunneis vel fuscis irregularibus, minutis, pulvinatis, ochraceis diutius tectis; uredosporis subglobosis vel ovoideis, brunneis, 20-28 × 17-25, episporio minute verrucoso; teleutosporis subglobosis vel ovoideis sæpe acutangulis, apice rotundato-obtusis vel applanatis atro-brunneis, 21-28 × 17-24, episporio atro-castaneo subverrucoso, pedicello brevi, subhyalino vel brunneolo, 5-6 μ. crasso.

Hab. in foliis vivis Borreriæ verticillatæ Rio de Janeiro Brasiliæ (Ule).

35. **Uromyces Werneriæ** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 212. — 967
Soris maximis, amphigenis, primo epidermide tectis, demum liberis, castaneis vel atro-fuscis, pulveraceis; teleutosporis magnitudine variabili, 24-48 × 21-39, rotundatis, ovoideis v. piriformibus, membrana fusca, apice plerumque paullo incrassata, subtilissime tuberculata; pedicello fragili.

Hab. in foliis Werneriæ nubigenæ, Chimborazo Æquatoriæ.

36. **Uromyces Helichrysi** Lagh. in Sydow, Uredineen n. 159. — Hy- 968
pophyllus vel caulincola; soris maculis purpureis insidentibus, epidermide non tectis, in cæspitulum aggregatis, convexis, compactis, fuscis; teleutosporis ovoideis, obtusis v. acuminatis, membrana ful-

va, vertice incrassata, levi, 24-30 18-22; pedicello longo, firmo, pallide flavo.

Hab. in foliis caulibusque vivis Helichrysi Stœchadis in montibus Cevennes Galliæ (Lagerheim).

37. **Uromyces Bidentis** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 213. — Soris hypophyllis, sparsis, parvis, epidermide non tectis, firmis, pallide fuscis; teleutosporis ovoideo-oblongis, apice papilla hyalina auctis, 40-54 × 15-20, membrana luteola, levi, tenui, contentu achroo, pedicello hyalino, persistenti. 969

Hab. in foliis Bidentis andicolæ pr. Quito in Æquatoria.

38. **Uromyces Asteris** Mc Alp. Agr. Gaz. Sydney. 1895 n. 11 Novbr. p. 5, fig. 6. — Soris teleutosporiferis hypophyllis, pulvinatis, sparsis; teleutosporis ovalibus, irregulariter piriformibus v. spathulatis, pedicellatis, pallide luteis, apice apiculatis, leviter incrassatis, 39-51 × 19-24, episporio levi, pallide luteo, 1½ μ. crasso; pedicello brevi, pellucido. 970

Hab. in foliis Asteris argophylli, Tasmania Australiæ.

39. **Uromyces araucanus** Diet. et Neg. Engl. Jahrb. 1897, p. 155. — Soris maculis circularibus 5-10 mm. latis, flavis v. brunneis insidentibus, hypophyllis, rarissime epiphyllis, mediocribus, dense aggregatis, epidermide diu tectis; teleutosporis obovatis v. piriformibus, rarius globosis v. clavatis, 30-45 × 19-30, episporio læte brunneo, apice modice (ca. 5 μ.) incrassato, levi indutis, pedicello dilute fusco, firmo, usque ad 70 μ. longo instructis. 971

Hab. in foliis vivis Senecionis Otitis in Andibus chilensibus (Negér).

40. **Uromyces dubiosus** P. Henn. Hedw. 1895, p. 91. — Soris amphigenis in maculis fuscis orbiculariter dispositis, gregariis atrobrunneis; uredosporis subglobosis, ovoideis v. ellipsoideis, flavo-brunneis, dein brunneo-fuscis, 23-26 × 20-24, episporio castaneo dense aculeato, 2-3 μ. crasso; teleutosporis subglobosis v. late ellipsoideis, subcastaneis, levibus, 25-33 × 22-28, episporio castaneo, levi, 3-5 μ. crasso, rarissime pedicellatis; pedicello brevi, hyalino. 972

Hab. in foliis vivis Lantanæ spec. in ditione fluvium Corumba prov. Goyaz Brasiliæ (Ule).

41. **Uromyces Heliotropii** Svedinski in Issatschenko, Parasit. Pilze Gouv. Cherson. 1896, p. 229. — Soris sporiferis parvis, rotundatis, ferrugineis, caulicolis et hypophyllis, epidermide tectis, demum epidermide lacerata cinctis; uredosporis globosis v. piriformibus, aculeatis, pallide-flavis, 20-28 × 15-20; teleutosporis globosis v. 973

sphæroideis, castaneo-brunneis, episporio plus minusve atro-brunneo, 20-28 × 15-20; pedicello hyalinulo, fragili.

Hab. in foliis caulibusque Heliotropii europæi, Cherson Rossiæ.

42. **Uromyces Solani** Diet. et Holw. Bot. Gaz. 1897, p. 24. — Soris 974
hypophyllis in maculis parvis flavis, sparsis, minutis, nudis; uredosporis obovatis, 23-33 × 18-21, pallide fuscis, echinulatis; poris germinationis 4, æquatoralibus; teleutosporis clavatis v. anguste ovatis, basi in pedicellum angustatis, apice plerumque rostratis, 30-48 × 10-17, levibus, pallide castaneis, apice hyalinis.

Hab. in foliis vivis Solani appendiculati, Cuernavaca, Mexico (Holway).

43. **Uromyces Myrsines** Diet. Hedw. 1897, p. 26. — Maculis magnis 975
usque 1 cm. diam., rotundatis, brunneis, arescentibus, margine elevato, sæpe flavo-areolatis; soris hypophyllis minutis, dense gregariis, firmis, nudis vel peripheris epidermide cinctis, fuscis vel cinnamomeis; teleutosporis ovoideis vel clavatis, 23-35 × 13-20, membrana flavo-brunnea, apice hyalina incrassataque, levi indutis; pedicello firmo, eadem longitudine vel duplo longiore quam teleutosporæ.

Hab. in foliis vivis duarum specierum Myrsines in Brasilia (Ule).

44. **Uromyces giganteus** Diet. Hedw. 1897, p. 26. — Soris hypophyllis 976
mediocribus, rotundatis, nudis, planis, ochraceis; teleutosporis clavatis, apice rotundatis, 50-95 × 20-45, membrana levi pallide flavescenti, apice valde (20-35 μ.) incrassata instructis, pedicello firmo, ca. 50 μ. longo suffultis.

Hab. in foliis Convolvulaceæ cujusdam ignotæ in provincia Minas Geraes Brasiliæ (Ule).

45. **Uromyces echinodes** (Kze.) P. Henn. Hedw. 1897, p. 213, *Cæoma* 977
echinodes Kze. in Herb. Berol. — Maculis sanguineis, sparsis gregariisque; soris hypophyllis $^1/_2$-1 mm. diametro, cinnamomeis, pulvinatis, subpulverulentis; teleutosporis globosis, ellipsoideis vel ovoideis, flavo-brunneis vel fusco-brunneis, 24-32 × 20-28, episporio usque ad 4-7 μ. crasso, aculeis acutis, hyalinis, 3-3 $^1/_2$ μ. longis ornato; pedicello hyalino, 5-6 μ. crasso, brevi, fragili.

Hab. in foliis vivis Asclepiadaceæ? in Surinam.

46. **Uromyces Demetrianus** Pazschke, Hedw. 1895 p. (101). — Sine 978
maculis; soris amphigenis, plerumque hypophyllis, uredosporiferis cinnamomeis, teleutosporiferis fuscis, epidermide fissa cinctis; ure-

dosporis cinnamomeis, globosis v. ellipsoideis, aculeatis, 21-27 × 17-22; teleutosporis brunneis, ellipsoideis, verrucosis. 23-28 × 18-20, pedicello fragili, 25-35 μ. long. suffultis.

Hab. in foliis vivis Apocyni cannabini in America bor. (Demetrio).

47. **Uromyces Cunninghamianus** Barcl., Syll. IX, p. 293 — f. **somalensis** P. Henn. Ann. del R. Istit. bot. di Roma VI, Fasc. 2, p. 85. — Maculis incrassatis, rufo-limitatis; æcidiis amphigenis caulicolisque; pseudoperidiis aggregatis, cupulatis applanatis, flavis; æcidiosporis subglobosis ovoideis v. ellipsoideis, acutangulis, levibus, flavescentibus, intus granulosis, 16-18 × 13-17, contextu cellulis reticulato-verrucosis, hyalinis, oblongis v. subrotundatis, 15-28 × 13-20; soris teleutosporiferis caulicolis sæpe intra æcidia pulvinatis, elongato-effusis, dense gregariis, cucurbitariiformibus, atro-cinnamomeis; teleutosporis clavatis ovoideis v. ellipsoideis apice incrassatis, obtusis, interdum gibbosis, flavo-brunneis, 25-45 × 20-28, episporio brunneo, pedicello subbrunneolo usque ad 100 μ. elongato, 8 μ. crasso. 979

Hab. in foliis, petiolis caulibusque Jasmini spec. prope Duaga in Somalia.

48. **Uromyces circumscriptus** Neg. Anal. de la Univers. Santiago 1895, p. 4; Hedw. 1897, p. 213, Engl. Jahrb. XXII, p. 350. — Acervulis amphigenis; pseudoperidiis solitariis vel in circulos interdum incompletos 1-2 mm. latos dispositis, margine denticulato, recto vel paullulum recurvato; æcidiosporis ellipticis v. polyhedricis, 33-40 × 26-35, in Oxyctantho 25-32 × 20-30, episporio incolorato, minute sed distincte verrucoso præditis; soris teleutosporiferis parum elevatis, solitariis, vulgo circulo æcidiorum cinctis, primo tectis, mox liberis et epidermide recta ut vallo circumdatis, pulveraceis, rufis; teleutosporis ellipticis, clavatis v. oblongis, 30-40 × 18-24, membrana crassa flavo-brunnea apice paullo incrassata et clariore, levi v. minute verrucosa præditis; pedicello brevi, fragili, 6-15 × 4-5. 980

Hab. in foliis vivis Loranthi verticillati, Sternbergiani, tetrandri pr. San Juan Chile (Neger) et Oxyctanthi spicati in insula Trinidad.

49. **Uromyces Manihotis** P. Henn. Hedw. 1895, p. 90. — Soris in pedunculis, caulibus, floribus foliisque evolutis, gregariis, pulvinatis, oblongis v. rotundatis, plerumque effuso-confluentibus, atris, primo epidermide rupta cinctis, dein liberis, pulverulentis; teleu- 981

tosporis oblongis v. ovoideis, levibus, brunneis, 30-45 × 18-30, vertice interdum lateraliter pallidiore papillatis v. rostratis, rostro usque ad 10 μ. longo, subobtuso, episporio castaneo, levi, 7-8 μ. crasso; pedicello hyalino v. subflavescente usque ad 120 μ. longo, 7-9 μ. crasso.

Hab. in fere omnibus partibus Manihotis spec. pr. Goyaz Brasiliæ (Ule).

982 50. **Uromyces manihoticola** P. Henn. Hedw. 1895, p. 90. — Soris teleutosporiferis hypophyllis, punctiformibus, sparsis, minutis, epidermide rupta cinctis, fusco-ochraceis; teleutosporis late ellipsoideis, levibus, apice pallidiore, subpapillatis v. rotundato-obtusis, atrobrunneis, 24-30 × 24-28, episporio levi, 8 μ. crasso; pedicello hyalino, subclavato, 10-20 × 8-10.

Hab. in foliis Manihotis spec. in prov. Goyaz Brasiliæ (Ule).

983 51. **Uromyces Jatrophæ** Diet. et Holw. Bot. Gaz. 1897, p. 25. — Maculis flavis, irregulariter marginatis vel nullis; soris teleutosporiferis hypophyllis, atris, parvis, sparsis v. irregulariter confluentibus; teleutosporis globosis v. late ellipticis, dense verrucosis, castaneis, apice fusco-papillatis, 27-33 × 23-29; uredosporis ellipticis, 21-25 × 17-22, membrana hyalina atque verrucosa; pedicello sporam æquante, caduco.

Hab. in foliis vivis Jatrophæ multifidæ, Guadalajara, Mexico (Holway).

984 52. **Uromyces Cnidoscoli** P. Henn. Hedw. 1895, p. 90. — Soris amphigenis, gregariis v. sparsis, $^1/_2$-$^1/_3$ mm. diam., minutis, punctiformibus, atris, in maculis rotundatis, flavescentibus, epidermide rupta cinctis, pulverulentis; teleutosporis subglobosis, poro medio, granulatis, brunneis, 25-30 × 23-28; episporio verrucoso-echinato, 2-3 μ. crasso, castaneo; pedicello brevi, fragili, hyalino, 12-14 × 5-6.

Hab. in foliis vivis Cnidoscoli vitifolii pr. Goyaz Brasiliæ (Ule).

985 53. **Uromyces Uleanus** Diet. Hedwigia 1897, p. 27. — Pseudoperidiis per totam foliorum paginam inferiorem dispersis, margine albo, recurvato, lacerato, caduco; æcidiosporis polyhedricis, subglobosis, rarius ellipticis, 15-20 × 15-18, minute verruculosis; soris teleutosporiferis amphigenis, mediocribus (0,5-2 mm.), sparsis, primo epidermide vesiculosa tectis, mox liberis, pulveraceis, fuscis; teleutosporis ovoideis vel globosis, 20-25 × 18-22, flavo-brunneis, longitudinaliter striatis, apice papilla hyalina ornatis, pedicello fragili instructis.

Hab. in foliis duarum specierum Euphorbiæ in Brasilia (Ule).

54. **Uromyces tinctoriicola** P. Magn. Verhandl. z. b. Ges. Wien 1896, p. 429, tab. VII, fig. 18-23. — Æcidiis hypophyllis, interdum totum folium obtegentibus, sparsis v. gregariis; soris teleutosporiferis hypophylllis; teleutosporis globosis v. ovalibus, 22-25 × 21-22, verrucosis, apice poro germinationis incrassato; uredosporis non visis. 986

Hab. in foliis vivis Euphorbiæ tinctoriæ in Kurdistania assyriaca (Bornmüller).

55. **Uromyces natalensis** P. Magn. Ber. Deutsch. Bot. Ges. 1896, p. 374. — Soris hypophyllis rotundatis congestis, atro-brunneis; teleutosporis apice incrassatis ibique poro germinationis præditis 20½-27 × 15½-20½, episporio punctulato-verrucoso nec striolato tectis, pedicello hyalino brevi deciduo fultis. 987

Hab. in foliis Euphorbiæ Gueinzii, Natal Africæ austr. — Ab affini *U. scutellato* tantum teleutosporarum episporio punctulato-verrucoso recedit.

56. **Uromyces globosus** Diet. et Holw. Bot. Gaz. 1897, p. 23. — Soris hypophyllis, mediocribus, sparsis, interdum gregariis, nudis, nigris, pulverulentis; teleutosporis sphæricis, 30-36 μ. diam. vel late ovatis et 40 μ. metientibus, opacis, atro-brunneis, dense verrucosis, apice dilutioribus, flavo-brunneis, pedicello sporam superante, caduco, hyalino, 10-12 μ. lato; uredosporis paucis visis, ovatis, 36 μ. longis, breve aculeatis, apice incrassatis, brunneis, basim versus dilutioribus. 988

Hab. in foliis Euphorbiaceæ cujusdam, Cuernavaca Mexico (Holway).

57. **Uromyces Quinchamalii** Neger, Anal. de la Univ. Santiago Chile 1896, XCIII. p. 779. — Æcidiis seriatim dense aggregatis; pseudoperidiis margine irregulariter denticulatis, 300 μ. altis, 300 μ. diam.; æcidiosporis obscure aurantiacis, subtilissime verruculosis v. sublevibus, 20 μ. diam.; soris uredosporiferis raris, sparsis, cauli et foliis insidentibus; uredosporis globosis, 20-30 μ. diam.; teleutosporis fusco-castaneis, obovoideis, rarius oblongis v. globosis, minute verrucosis, 25-40 × 25-30, pedicello hyalino, 5-8 μ. longo. 989

Hab. in Quinchamalio majore in Chile.

58. **Uromyces Salsolæ** Reich.-Sacc. Syll. VII, p. 574 (Diagn. incompl.). — Soris uredosporiferis rufo-ferrugineis, caulicolis et hypophyllis, ovatis, parvis, convexis; uredosporis sphæroideis, 15-22 × 11-15, aculeatis, pallide brunneis. 990

Hab. in foliis caulibusque Salsolæ Kali, Cherson Rossiæ.

59. **Uromyces Costi** P. Henn. (sub *Ur. Dichorisandræ* P. Henn.) Hedw. 1895, p. 91. — Maculis flavis, irregulariter orbicularibus; soris hypophyllis dense gregariis, orbicularitèr dispositis, cinnamomeis, minutis, punctiformibus, pulverulentis; teleutosporis subglobosis v. subovoideis, flavo-brunneis, levibus, 21-25 × 18-23, pedicello brevi, hyalino, episporio brunneo, 5-6 μ. crasso 991

Hab. in foliis vivis Costi pumili (non Dichorisandræ) pr. Goyaz Brasiliæ (Ule).

60. **Uromyces Gladioli** P. Henn. Hedw. 1895, p. 326. — Maculis epiphyllis, brunneis, oblongis; soris hypophyllis, striiformibus, interdum confluentibus, epidermide velata, cinerea tectis, deinde nudis, cinnamomeis; sporis subglobosis, ovoideis v. subclavatis, acutangulis, levibus, brunneis, apice depresso-obtusis, valde incrassatis, 30-38 × 15-25; pedicello hyalino, interdum fuscidulo, usque ad 30 μ. longo, 4-5 μ. crasso. 992

Hab. in foliis Gladioli angusti in Africa australi.

61. **Uromyces Tricorynes** Mc Alp. Agr. Gaz. Sydney. 1895, n. 11 Novbr. p. 5, fig. 7-9. — Pseudoperidiis in maculis amphigenis pallidis insidentibus, minute pulvinatis, cupulatis, margine albo irregulariter lacerato, reflexo; æcidiosporis aurantiacis, subglobosis v. polygonalibus, levibus, 20 × 17; soris uredosporiferis in maculis pallide viridibus insidentibus, amphigenis, lateritiis v. aurantiacis, elongato-ovalibus v. ellipticis, bullatis, solitariis v. gregariis, non confluentibus, primo papillatis, demum epidermide rupta cinctis; uredosporis aurantiacis, sphæricis v. subsphæricis, subtiliter echinulatis, poris germinationis 4 v. pluribus oppositis, episporio crasso, 20-23 μ. diam.; soris teleutosporiferis in maculis rubescenti-brunneis insidentibus, elongatis confluentibusque amphigenis; teleutosporis variis, ovalibus, ovatis v. subglobosis, flavo-brunneis v. castaneis, interdum hyalinis, levibus, apice incrassatis, rotundatis, 25-31 × 20-25; pedicello persistente v. caduco, pallide luteo, brevi v. longissimo, 59 μ. 993

Hab. in foliis caulibusque vivis Tricorynes elatioris, Victoria Australiæ.

62. **Uromyces Chlorogali** Diet. et Holw. Erythea 1893, p. 248. — Amphigenus; æcidiis solitariis, minutis, fissura pseudoperidii oblonga dehiscentibus; æcidiosporis globosis v. lato ovatis, subtiliter verrucosis, membrana hyalina, 31-40 μ. diam.; soris teleutosporiferis irregulariter sparsis, primo epidermide tectis, mox nudis, globo- 994

sis v. irregularibus, brunneis; teleutosporis globosis, ovatis v. irregularibus, tenue tunicatis, apice non incrassatis, levibus, fuscis, 30-40 × 25-35; pedicello 30 μ., caduco.

Hab. in foliis vivis Chlorogali pomeridiani, Berkeley in California (Blasdale).

63. **Uromyces Triteleiæ** Diet. et Neg. Engl. Jahrb. 1897, p. 153. — 995
Æcidiis solitariis, raro nonnullis seriatim aggregatis, amphigenis; pseudoperidiis vix prominentibus, oblongis, ore longitudinaliter fisso et irregulariter denticulato, albo præditis; æcidiosporis ellipticis, oblongis v. irregulariter polyhedricis, 21-28 × 16-21, aurantiacis, episporio tenui, subtiliter verrucoso indutis; soris teleutosporiferis cir laribus, ellipticis v. striiformibus, ½-3 mm. longis, sparsis, epidermide plumbea inflata diu tectis, postea fissura longitudinali dehiscentibus, pulveraceis, castaneis; teleutosporis ellipticis v. ovoideis, 23-30 × 17-22, fuscis, apice papilla hyalina instructis, levibus, pedicello brevissimo, caduco suffultis.

Hab. in foliis scapisque vivis Triteleiæ porrifoliæ pr. Concepcion in Chile (Neger).

64. **Uromyces bicolor** Ell. et Ev. Contrib. U. S. Nat. Herb. IV, p. 231 996
et in Bull. Torr. Bot. Cl. 1897, p. 282. — Æcidiis amphigenis, apices foliorum occupantibus, dense sparsis; pseudoperidiis hemisphæricis initio clausis, dein erumpentibus apertis, ¾ mm. diam., margine denticulato; æcidiosporis obovatis, ellipticis v. subglobosis, 22-30 × 15-20, levibus; soris uredosporiferis minutis, ¾-2 mm., oblongis v. ellipticis, mox nudis, dilute luteis; uredosporis ellipticis, levibus, pallidis, membranaceis, 20-30 μ. crassis; soris teleutosporiferis punctiformibus nigris, dense gregariis vel confluentibus ac ¾-1½ mm. longis, ½-1 mm. latis, persistenter epidermide velatis; teleutosporis obovatis v. piriformibus, 20-30 × 15-22, pallide brunneis, episporio levi apice vix incrassato præditis; pedicello brevi, 15-25 μ. longo, hyalino, caduco.

Hab. in foliis vivis Allii validi et A. rigidi, California.

65. **Uromyces aterrimus** Diet. et Holw. Erythea 1895, p. 78. — 997
Soris uredosporiferis ovalibus v. circularibus, epidermide straminea tectis; uredosporis ellipticis v. ovoideis, 25-34 × 20-27, pallide flavis, echinulatis, poris germinationis compluribus; soris teleutosporiferis indefinitis, confluentibus, piceis, uredosoros circumdantibus; paraphysibus multis, brunneis; teleutosporis ellipticis, 28-40 × 20-30, levibus, apice vix v. non incrassatis, brunneis, pedicello tenui sporam subæquante fultis.

Hab. in foliis Allii validi et A. unifolii in California. — *U. ambiguo* et *U. bicolori* affinis, sed paraphysibus numerosis ac teleutosporis majoribus distincta species.

66. **Uromyces rhynchosporicola** P. Henn. Hedw. 1896, p. 226. — 998
Soris amphigenis, striiformibus sæpe confluentibus, atrocinnamomeis, longitudinaliter rimosis epidermide rupta cinctis; teleutosporis subglobosis ovoideis vel ellipsoideis, sæpe acutangulis, intus flavis dein fusco-brunneis 15-23 × 14-19; episporio subhyalino vel fuscidulo, verruculoso, ca. 3 μ. crasso.

Hab. in foliis vivis Rhynchosporæ spec. in Brasilia (Ule).

67. **Uromyces galericulatus** Schroet. Hedw. 1896, p. 225. — Soris 999
striiformibus ca. 2 mm. longis, epidermide vesiculosa tectis, atrobrunneis; uredosporis ellipsoideis vel elongato-ovoideis, 26-35 × 18-21, episporio brunneo, aculeato; teleutosporis ovoideis vel subfusoideis, 33-46 (plerumque 36-40) × 16-20, apice rotundato, valde incrassato, episporio brunneo, levi; pedicello 20-35 × 5-6, pallide brunneolo.

Hab. in foliis Scirpi maritimi, Sierras Pampeanas pr. Carchué Argentinæ (Lorentz).

68. **Uromyces minutus** Diet. Bull. Cornell Univ. III, n. 1, 1897, p. 21. 1000
— Soris uredosporiferis hypophyllis, minutis, punctiformibus v. elongatis, epidermide rupta cinctis, cinnamomeis; uredosporis ellipticis v. sphæricis, 15-19 × 11-15, brunneis, spinulosis; soris teleutosporiferis hypophyllis, minutis, punctiformibus v. elongatis, nudis, nigris; teleutosporis ovalibus v. piriformibus, 20-25 × 10-17, episporio levi, brunneo, apice incrassato instructis; pedicello persistente, sporam superante.

Hab. in foliis Caricis spec., Auburn, Alabama Amer. bor.

69. **Uromyces Caricis-sempervirentis** Ed. Fisch. Bull. l'Herb. Boiss. 1001
1898, p. 17; *Uromyces Dietelianus* Fisch. Bull. l'Herb. Boiss. 1897, p. 393, nec Pazschke. — Soris uredosporiferis minutis, diu epidermide tectis; uredosporis dilute brunneis, globosis v. ellipsoideis, 24-28 × 21, aculeis hyalinis minutis late vestitis, poris germinationis 2 vel 3; soris teleutosporiferis minutis; teleutosporis brunneis, forma variis, 20-35 × 20-24, levibus, episporio 2-3 μ. crasso, apice plerumque papilla 3-6 μ. alta pallidiore coronato; pedicello hyalino, sporam æquante vel eam superante.

Hab. in foliis vivis Caricis sempervirentis in Helvetia.

70. **Uromyces caricinus** Ell. et Ev. Bull. Torr. Bot. Club 1895, p. 58. 1002
— Soris sparsis, oblongis, $^1/_2$-1 mm. longis, $^1/_3$ mm. latis, epider-

mide luteola tectis, non confluentibus; uredosporis teleutosporis immixtis, ovatis v. ellipticis, pallidis, tuberculoso-echinulatis, 20-22 × 14-16; teleutosporis obovatis, deorsum pallidis, apice rotundatis v. sæpe distincte hyalino-papillatis, episporio levi, apice valde incrassato et obscure tincto, 19-23 × 14-16; pedicello luteolo, sporas æquante.

Hab. in foliis v. culmis Caricis scopariæ, New York, Amer. bor.

71. **Uromyces Ægopogonis** Diet. et Holw. Bot. Gaz. 1897, p. 25. — 1003
Soris hypophyllis, raro epiphyllis; soris uredosporiferis oblongis v. linearibus, ochraceis; uredosporis plerumque globosis v. subglobosis, 20-24 μ. diam., pallide fuscis, echinulatis, poris germinationis 8; soris teleutosporiferis atris, ellipticis v. sublinearibus, pulvinatis; teleutosporis æqualibus, globosis, 22-27 μ. diam., castaneis, levibus, apice calyptratis (5-7 μ.) atque obscurioribus; pedicello fusco, firmo, longo.

Hab. in foliis vivis Ægopogonis cenchroidis pr. Mexico (Holway). — *U. Peckiano* affinis, sed teleutosporis globosis diversus.

72. **Uromyces minimus** Davis, Bot. Gaz. 1894, p. 415. — Hypophyllus; 1004
soris uredosporiferis dilute brunneis, oblongis v. linearibus, mox nudis; uredosporis globosis v. ovalibus, dilute brunneis, echinulatis, 12-19 μ. diam.; soris teleutosporiferis nigris, oblongis v. linearibus; teleutosporis brunneis levibus, sphæroideo-ovalibus v. oblongis, 14-22 × 12-19, vulgo 17-20 × 15-17, apice rotundatis, conicis v. interdum truncatis, crassissime incrassatis, pedicello colorato 20-40 μ. longo fultis; paraphysibus coloratis clavatis.

Hab. in foliis Muhlenbergiæ silvaticæ in Wisconsin Amer. bor.

73. **Uromyces Epicampis** Diet. et Holw. Bot. Gaz. 1897, p. 23. — 1005
Soris epiphyllis, linearibus, nudis; soris uredosporiferis flavo-brunneis; uredosporis plerumque globosis, 28-32 μ. diam., dense aculeatis; poris germinationis numerosis, per totam superficiem sparsis; soris teleutosporiferis atro-brunneis; teleutosporis globosis v. ovatis, apice interdum conicis, 26-35 × 20-26, castaneis, episporio tenui, apice obscuriore ibique valde (5-7 μ.) incrassato; pedicello firmo, 60-100 μ. longo.

Hab. in foliis vivis Epicampis macrouræ, Esclava Mexico (Holway).

74. **Uromyces marginatus** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, 1006
156. — Soris orbicularibus, hypophyllis, in macula brunnea

obscura prominente margine limitata, e substantia desiccata folii composita; teleutosporis pallide flavis, 18-29 × 10 ½; pedicellis 29 × 4 ½.

Hab. in foliis indeterminatis, Costa-Rica.

75. **Uromyces inconspicuus** Otth, Bern. Mittheil. 1868, p. 69. — Maculis vix ullis; cæspitulis punctiformibus, atris, oligosporis, hypophyllis; sporis nigro-fuscis, ellipsoideis, levibus, 32 × 18, apiculo nunc minutissimo, hyalino, verruciformi, nunc plane nullo; stipite hyalino, brevissimo, vix diametro longiore. 1007

Hab. in foliis Chenopodii, Alchemillæ, Galeopsidis, Fragariæ, Polygoni, Cannabidis, Solani, Amaranti in Helvetia. — Quid sit hæc species pantogena non liquet, certe dubia res.

76. **Uromyces pachycephalus** Neger, Anal. de la Univ. Santiago 1895, p. 3 extr. est *Uromyces Hyperici-frondosi* Schw.

MELAMPSORA Cast. — Syll. VII, p. 586, IX, p. 296, XI, 183.

1. **Melampsora Lini** (DC.) Tul.-Syll. VII, p. 588. — Var. **Viscosi** Vogl. Bull. Soc. bot. Ital. 1896, p. 38. — Soris uredosporiferis sparsis, aurantiacis, rotundatis, pseudoperidio deciduo obtectis; uredosporis ovoideo-oblongis, luteolis, 22-30 × 14-16; soris teleutosporiferis explanatis, subatris; teleutosporis cylindraceis, 55-70 × 20-22. 1008

Hab. in foliis vivis Lini viscosi in Helvetia italica.

2. **Melampsora Ruspoliana** P. Henn. Ann. del R. Istit. di Roma VI, Fasc. 2, p. 85. — Maculis flavis v. fuscescentibus irregularibus; soris uredosporiferis amphigenis sparsis v. gregariis rotundatis, applanatis, alutaceis v. pallide ochraceis, ca. ⅓-½ mm. diam.; uredosporis subgloboso-ovoideis v. oblongis, acutangulis intus flavescentibus subgranulatis, 18-28 × 14-25, episporio incrassato granuloso-subaculeato, hyalino, 5-6 μ. crasso; paraphysibus intermixtis clavatis v. capituliformibus longe stipitatisque subhyalinis, 30-45 μ. longis, 14-28 μ. latis; teleutosporis ignotis. 1009

Hab. in foliis vivis Vernoniæ sp. pr. Ueb Karenli in Somalia.

3. **Melampsora Pedicularis** Vogl. Bull. Soc. bot. Ital. 1896, p. 38. — Soris uredosporiferis rotundatis, elevatis, hypophyllis, liberis, exiguis, badiis; uredosporis elliptico-oblongis v. ovatis, aculeatis, aurantiacis, episporio crasso, hyalino, 16-20 × 10-14; paraphysibus numerosis, oblongo-clavatis, curvatis, 55-60 × 15-18; soris teleutosporiferis minutissimis, sæpe confluentibus, epiphyllis, primo avellaneis, demum fuligineis; teleutosporis late cylindraceis v cunea- 1010

tis, unilocularibus, umbrinis, intus granulosis, episporio tenui, levi, jam in matrice viva germinantibus, 28 × 16; sporidiolis globosis, luteis, circiter 12 μ. diam.

Hab. in foliis Pedicularis verticillatæ in Helvetia.

4. **Melampsora Apocyni** Tranzschel apud Issatschenko Parasit. Pilze 1011
Gouv. Cherson. 1896, p. 237. — Soris teleutosporiferis hypophyllis, irregularibus, pulvinatis, primo rufis, dein crustas atrofuscas efformantibus; teleutosporis (intercellularibus, unilocularibus) cylindraceo-prismaticis, deorsum angustatis, episporio dilute fusco præditis, circiter 40 × 7-13.

Hab. in foliis Apocyni veneti, Cherson Rossiæ.

5. **Melampsora Gelmii** Bres. Bullett. della Soc. bot. italiana 1897, 1012
p. 75. — Hypophylla; soris uredosporiferis in greges circulares dispositis, raro solitariis; uredosporis subglobosis v. rarius ellipticis, laxe et subtiliter aculeatis, membrana crassa hyalina, contentu stramineo, 21-24 × 16-21; paraphysibus clavatis, apice 16-18 μ. latis; soris teleutosporiferis rotundatis, interdum confluentibus, generatim orbiculariter dispositis, badio-nigris; teleutosporis unicellularibus, subcylindraceis, basi tenuiter attenuatis, apice truncatis, luteo-fulvellis, 50-80 × 9-12, basi pediculo septato, sæpe duobus teleutosporis communi, 15-16 × 6-7 præditis.

Hab. in foliis vivis Euphorbiæ dendroidis in insulis Corfu (Gelmi) et Sardinia et in Alpibus maritimis Galliæ (Vidal).

6. **Melampsora Euphorbiæ-dulcis** Otth, Bern. Mittheil. 1868, p. 70. — 1013
— Hypophylla; soris aggregatis badiis impolitis; teleutosporis flavido-brunneis, breviter et crassiuscule cylindricis sive e mutua pressione subprismaticis, invicem arcte cohærentibus; uredosporis ut in *M. Euphorbiæ* (DC.).

Hab. In foliis Euphorbiæ dulcis in Helvetia. — Verisimiliter var. *M. Helioscopiæ*.

7. **Melampsora Idesiæ** Miyabe Bot. Mag Tokyo XI, 1897, p. 45, 1014
tab. IV, fig. 1-3. — Soris uredosporiferis hypophyllis, subrotundis, minutis, sæpe confluentibus; uredosporis globosis, ovatis v. oblongis, 18-26 × 15-16, echinulatis, contentu aurantiaco; paraphysibus numerosis, 50-70 × 16-26, capitatis v. clavatis, hyalinis v. leviter luteolo-brunneis; soris teleutosporiferis hypophyllis, compactis, brunneolis, applanatis; teleutosporis intercellularibus, cylindraceis, 30-45 × 7-11, apice truncatis v. obliquis, contentu luteolo-brunneo.

Hab. in foliis Idesiæ polycarpæ pr. Tokyo Japoniæ (Hori).

8. **Melampsora Reticulatæ** Blytt, Christiania Vid. Selsk. Forh. 1896, 1015
n. 6, p. 65. — Soris uredosporiferis rotundatis, sat parvis, hypophyllis; uredosporis aculeatis, globularibus v. ovalibus, 17-27 μ.; paraphysibus numerosis, majoribus quam in aliis speciebus, circiter 86 μ. longis, apice 30-35 μ. latis, capitato v. clavato-incrassatis, pariete usque ad 6-7 μ. crasso; soris teleutosporiferis epiphyllis, sat parvis, atro-brunnei; teleutosporæ 40 × 11.

Hab. in foliis vivis Salicis reticulatæ in Finmarkia, Nordlandia, alpibus Dovrensibus.

9. **Melampsora alpina** Juel, Ofversigt af Kongl. Vet.-Akad. Förhandl. 1016
1894, n. 8, p. 417. — Soris uredosporiferis minutis, plerumque epiphyllis, sparsis; uredosporis subglobosis v. breve ellipsoideis, c. 18 × 15, aurantiacis, spinulosis; paraphysibus apice crasse tunicatis, 30-35 μ. longis; soris teleutosporiferis amphigenis, minutis, tandem nigro-brunneis, ut in *Mel. farinosa,* sed subcutanee evolutis.

Hab. in foliis Salicis herbaceæ in regione alpina Norvegiæ et Sueciæ, in fol. S. polaris ad Doore Norvegiæ.

10. **Melampsora Fagi** Diet. et Neg. Engl. Jahrb. XXII, p. 355. — 1017
Soris uredosporiferis hypophyllis, minimis, sparsis, nudis, primo læte aurantiacis, deinde albidis; uredosporis ellipticis v. ovoideis, rarius globosis, 18-24 × 15-19, episporio verrucoso hyalino præditis; paraphysibus nullis; soris teleutosporiferis epiphyllis, crustiformibus, confluentibus et sæpe totum folium obtegentibus, rufis; teleutosporis cylindraceo-prismaticis, usque ad 80 μ. longis, 9-15 μ. latis, plerumque transverse uniseptatis, episporio apice incrassato, fusco.

Hab. in foliis vivis Fagi obliquæ et proceræ per magnam partem reipublicæ chilensis (Neger).

PHACOPSORA P. Diet. Ber. Deutsch. Bot. Ges. 1895, p. 333 (Etym. *phacos* lens et *psora* pustula). A *Melampsora* præcipue teleutosporis stratosis in corpus lentiforme conjunctis recedit.

1. **Phacopsora punctiformis** (Barcl. et Diet.) Diet. l. c.; *Melampsora punctiformis* Barcl. et Diet. Hedw. 1891, p. 267, tab. XV, fig. 2 et Sacc. Syll. IX, p. 297.

Hab. in foliis, quæ flavescunt, Galii Aparines, Simla Indiæ.

2. **Phacopsora Ampelopsidis** Diet. et Syd. Hedw. 1898, p. 217. — 1018
Soris hypophyllis, maculis fuscis insidentibus; soris uredosporiferis minutissimis usque 250 μ. latis, paraphysibus clavatis introrsum curvatis densissime circumdatis et internixtis; uredosporis obovatis v. ellipsoideis, 18-22 × 13-15, episporio achroo, echinulato præ

ditis; soris teleutosporiferis crustaceis, plerumque soros uredosporiferos solitarios ambientibus, fuscis, minutis, sparsis, applanatis, usque 80 μ. crassis, epidermide tenui tectis; teleutosporis catenatim 4-6 superpositis apice haud incrassatis, 10-25 × 8-12, oblongis v. cubicis, superficialibus subfuscis, reliquis pallide-flavescentibus.

Hab. in foliis Ampelopsidis leeoidis, Tokyo Japoniæ (M. Shirai).

UREDINOPSIS P. Magn. — Syll. XI, p. 230.

1. **Uredinopsis Struthiopteridis** Störmer. Botan. Notiser 1895, p. 81. 1019
— Uredosporis ovoideis v. fusiformibus, vertice apiculo acuto præditis, 30-55 × 12-18, una serie aculeorum obsessis, alibi levibus; soris teleutosporiferis punctiformibus, pseudoperidio tectis; teleutosporis unicellularibus ovoideo-polyhedricis, angulosis, pallide brunneolis, tenuiter verrucosis, pedicellis longis caducis suffultis, 27-40 × 16-23; teleutosporis entoparenchymaticis hyalinis, subglobosis, 2-4-cellularibus, 16-24 × 16-23; sporidiolis globosis.

Hab. in foliis Struthiopteridis germanicæ in Suecia.

SCHROETERIASTER P. Magn. Ber. d. Deutsch. Bot. Ges. 1896, p. 129, tab. IX. (Etym. ab ill. mycologo J. Schroeter). — Genus novum in *Uromycete alpino* conditum. Differt a genere *Uromycete* teleutosporis sessilibus, in stratum lentiformem connatis.

CHACONIA Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 12 extr. (Etym. a regione «Gran chaco» reipublicæ austro-americanæ Paraguay). — Teleutosporæ e cellulis basalibus successive enatæ, non pedicellatæ, unicellulares, membrana tenui præditæ, statim germinantes, promycelio apicali brevissimo, quadricellulari, sporidiola gignenti. Spermogonia, æcidia, uredo ignota.

1. **Chaconia alutacea** Juel. l. c. — Maculis supra pallidis parum di- 1020
stinctis, subtus alutaceis rotundatis, 3-4 mm. latis; soris hypophyllis, minutis, punctiformibus v. linearibus, sæpe confluentibus et quasi labyrinthiformibus alutaceis; teleutosporis oblongis, sacciformibus, dilutissime coloratis, circiter 50 × 15; sporidiolis ovoideis v. subglobosis, 9 × 6.

Hab. in foliis Calliandræ Harrisii, Gran Chaco Paraguay (Lindman).

CRONARTIUM P. Henn. — Syll. VII, p. 597, IX, p. 298.

1. **Cronartium usneoides** P. Henn. Hedw. 1895, p 95. — Maculis 1021
rotundatis, fusco-brunneis, amphigenis; columellis teleutosporarum cæspitosis, plerumque hypophyllis, raro epiphyllis, longissimis, filiformibus, cirratis, flexuosis, usneiformibus, simplicibus, luteolis, usque ad 3 cm. longis, ca. 100 μ. crassis; teleutosporis oblongis, utrinque rotundatis, flavis, 25-45 × 11-16.

Hab. in foliis Conyzæ spec. in prov. Goyaz Brasiliæ (Ule).

2. **Cronartium Bresadoleanum** P. Henn. Pilz. Ostafr. p. 51. — Co- 1022
lumellis sori teleutosporiferi hypophyllis, dense gregariis, teretibus, flexuoso-cirratis, levibus, simplicibus, rufo-brunneis, 5-9 mm. longis, 120-180 μ. crassis; teleutosporis oblongis, oblique obtusis, flavo-brunneis v. brunneo-fuscis, 15-24 μ. crassis.

Hab. in foliis Erythroxyli in Africa trop. (Braga).

3. **Cronartium Nemesiæ** Vestergr. Bihang K. Svenska V. A. Handl. 1023
XXII, Afd. III, n. 6, 1896, p. 5. — Hypophyllum; soris uredosporiferis sparsis v. subgregariis, pseudoperidio brunneo, sursum pallidiore, perforato præditis; uredosporis ellipticis, ovatis v. rotundatis, echinulatis, 20-28 × 16-19, flavescentibus vel hyalinis; soris teleutosporiferis cylindraceis, brunneis; teleutosporis cylindraceo-ellipsoideis, utrinque obtusis, ca. 12 μ. latis, flavido-brunneis.

Hab. in foliis Nemesiæ versicoloris, Gotlandia Sueciæ. — A *Cronartiis asclepiadeo, Balsaminæ* et *flaccido* vix ullis notis nisi matrice distinctum.

4. **Cronartium Gilgianum** P. Henn. Fungi camerun. I in Engl. Jahrb. 1024
XXII, 1895, p. 83. — Columellis sori teleutosporiferi hypophyllis, dense gregariis, rigidis, corneis, subulatis, atrobrunneis, teretibus, indivisis, apice subobtusis v. acutiusculis, basi pallidioribus, 8-12 mm. longis, 160-200 μ. crassis; sporis oblongis, flavo-brunneis, irregulariter acutangulis, obtusis, 15-20 μ. crassis, episporio fusco-brunneo, 4-6 μ. crasso.

Hab. ad folia coriacea arboris ignotæ, Benguella, Africa (Antunes).

DIETELIA P. Henn. Hedw. 1897, p. 215 (Etym. a cl. mycologo P. Dietel). — Sporæ continuæ, catenulatæ sine cellulis interstitialibus, pseudoperidio tectæ; sori subtremelloidei, subglobosi, basi immersi.

1. **Dietelia verruciformis** P. Henn. l. c. (= *Cronartium verruciforme* 1025

P. Henn.). — Soris hypophyllis, dense gregariis, verruciformibus, subglobosis, subtremelloideis, flavo-ochraceis, 250-350 × 250 × 300; cellulis pseudoperidii oblongis acutangulis hyalino-subflavescentibus; sporis subglobosis, ellipsoideis v. ovoideis, acutangulis, intus granulatis, hyalino-subflavescentibus, 18-35 × 12-20, episporio levi 3-5 μ. crasso.

Hab. in foliis Sidæ macrodontis var. intermediæ in prov de Cordoba Argentinæ (Hieronymus).

MASSEELLA P. Diet. Ber. Deutsch. Bot. Ges. 1895, p. 332 (Etym. a cl. mycologo G. Massee). — Generi *Cronartio* affinis, sed differt defectu uredosporarum, teleutosporis gelatina obvolutis, laxe nec arctissime coalitis.

1. **Masseella Capparidis** (Hobs.) Diet. l. c. tab. XXVI, fig. 14; *Cronartium Capparidis* Hobs. in Grevillea XIV, p. 89; Sacc. Syll. VII, p. 599.

Hab. in foliis Capparidis spec., Bombay Indiæ (Hobson).

Sect. 2. Didymosporæ

PUCCINIA — Syll. VII, p. 600, IX, p. 298, XI, p. 184.

1. **Puccinia stromatica** Berk. et Curt. — Syll. VII, p. 690 (Diagn. incompl.). — Soris maximis, carbonaceis, e soris minoribus confluentibus compositis; teleutosporis medio non vel paullo constrictis, 24-34 × 18, membrana castanea, crassa, æquabili crassitudine vel ad apicem sporæ paullo incrassata, levi (ut videtur); pedicello longo, persistenti, luteolo.

Hab. in ramis Clematidis in Alabama Amer. bor.

2. **Puccinia Nuttallii** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 283. — 1026
— Soris teleutosporiferis in foliis, petiolis et floribus evolutis, initio epidermide alutacea tectis, mox nudis, pulverulentis subnigris, in foliis tenuibus minutis confluentibus applanatis, in petiolis elongatis sublinearibus; teleutosporis ellipticis, oblongis v. obovato-ellipticis, utrinque rotundatis plerumque papilla minuta applanata coronatis, episporio crasso apice non vel vix incrassato, initio levi at in maturitate dense sed non prominenter tuberculoso-asperato præditis, flavo-brunneis, demum obscure brunneis 25-40 × 18-20.

Hab. in foliis, floribus et petiolis Cyrtorhynchæ Nuttal-

lii, Rocky Mountains Amer. bor. — *P. Ranunculi* et *P. gibberulosæ* valde affinis.

3. **Puccinia Thlaspeos-glaucophylli** P. Henn. Hedw. 1896, p. 229. — 1027
Soris foliicolis pulvinato-bullatis, rotundis, sparsis vel aggregatis, diu epidermide cinerea tectis ca. 1 mm. diametro; uredosporis globosis vel ellipsoideis, brunneis, 16-24 × 15-23 μ., episporio castaneo minute verrucoso 3-4 μ. crasso; teleutosporis intermixtis oblongis utrinque rotundatis apice haud incrassatis læte brunneis, 28-32 × 15-24, medio constrictis, episporio minute verrucoso, castaneo; pedicello hyalino, brevi.

Hab. in foliis vivis Thlaspeos glaucophylli, Cordillera de la Compana in Chile (Philippi). — *P. Drabæ* Rud. valde affinis, sed teleutosporis brevibus, constrictis atque pedicello hyalino diversa.

4. **Puccinia Hutchinsiæ** Diet. Hedw. 1897, p. 299. — Soris teleuto- 1028
sporiferis mediocribus, pulvinatis, hypophyllis, plerumque dense confertis, singulis epiphyllis, nudis, fuscis; teleutosporis ellipticis v. oblongis, utrinque rotundatis, ad septum constrictis, 36-53 × 21-28, episporio levi, castaneo, apice incrassato indutis, pedicello brevi, caduco suffultis.

Hab. in foliis Hutchinsiæ altæ in regione fluminis Seravschan superioris Turkestaniæ (Komarow).

5. **Puccinia pallefaciens** Diet. et Holw. Erythea 1894, p. 128. — 1029
Soris minutis, brunneis, dein griseolis, dense confertis et totam foliorum paginam inferiorem obtegentibus, in epiphyllo paucis; teleutosporis oblongis; apice conicis v. rotundatis, 5,5-10 μ. incrassatis, loculo inferiore attenuato v. basi rotundato, centro distincte constrictis, pallide brunneis, levibus, 43-66 × 21-26; mesosporis haud raris; pedicello persistenti, sporam æquante vel eam superante.

Hab. in foliis Arabidis Holboelli, Pasadena Californiæ (Mc Clatchie).

6. **Puccinia Drabæ** Rud.-Syll. VII, p. 683. — Var. **arctica** P. Henn. 1030
in Allescher et P. Hennings, Pilze aus dem Umanakdistrict. 1897, p. 2. — Soris oblongis, substriiformibus confluentibusque, primo epidermide inflata pallida tectis, dein nudis, cinnamomeis; uredosporis intermixtis, subglobosis, ellipsoideis vel subovoideis, brunneis, 15-25 × 14-15, episporio verrucoso; teleutosporis oblongis, ovoideis vel subclavatis, pallide brunneis, medio septatis constrictisque, apice haud incrassatis, 22-35 × 15-20, episporio verrucoso, brunneo, pedicello pallido-brunneo, fragili, brevi.

Hab. in caulibus, pedunculis siliquisque Drabæ hirtæ var. lejocarpæ pr. Asakak Groenlandiæ (Vanhöffen).

7. **Puccinia Didymophysæ** Diet. Hedw. 1897, p. 299. — Soris teleutosporiferis magnis, haud raro bullatis, amphigenis, circularibus, in caulibus oblongis, pulveraceis, lobulis epidermidis ruptæ semitectis, fuscis; teleutosporis utrinque rotundatis, medio constrictis, 38-50 × 19-25, flavo-brunneis, verrucosis, apice plerumque papilla lata, humili ornatis, pedicello brevi, caduco suffultis. 1031

Hab. in foliis caulibusque Didymophysæ spec. in regione fluminis Seravschan superioris in Turkestania (Komarow).

8. **Puccinia effusa** Diet. et Holw. Erythea 1895, p. 81. — Æcidiis hypophyllis, interdum etiam epiphyllis, in caulibus ac petiolis late expansis v. minoribus irregularibusque et secus nervos sæpe dispositis; pseudoperidiis brevibus, in petiolis oblongis, margine albo lacerato; æcidiosporis subglobosis v. ellipticis, membrana hyalina verrucosa præditis, 19-30 × 15-20; soris uredo- et teleutosporiferis plerumque hypophyllis, etiam caulicolis, magnitudine variis, sparsis v. confluentibus, atro-brunneis, pulverulentis; uredosporis breve ellipticis v. globosis, 25-28 × 22-27, brunneis, membrana crassa echinulata donatis; teleutosporis plerumque ellipticis v. obovatis, typice apice rotundatis, interdum deorsum attenuatis, plerumque non incrassatis, verrucosis, castaneis, 30-50 × 22-29, pedicello hyalino brevi deciduo suffultis. 1032

Hab. in foliis Violæ lobatæ et V. ocellatæ duobus locis in California (Holway et Blasdale).

9. **Puccinia densa** Diet. et Holw. Hedw. 1897, p. 298. — Soris teleutosporiferis in maculis flavescentibus paginæ inferioris foliorum insidentibus, punctiformibus, dense gregariis, epidermide erecta cinctis; teleutosporis forma valde irregulari, ellipticis v. oblongis, sæpe angulatis, papilla hyalina minuta apicali v. laterali instructis, episporio tenui, levi v. subtiliter verrucoso indutis, 27-40 × 14-24, unilocularibus haud raris, pedicello brevissimo, caduco suffultis. 1033

Hab. in foliis Violæ glabellæ, Washington Amer. bor. (Suksdorf).

10. **Puccinia Sphæralceæ** Ell. et Ev. Americ. Natur. 1897, p. 428 syn. *Æcidium Sphæralceæ* Ell. et Ev. in Bull. Torr. Bot. Cl. 1895, p. 364. — Spermogoniis epiphyllis in maculis luteolis; æcidiis hypophyllis, dense cæspitosis, 2-8 mm. occupantibus; pseudoperidiis obscure aurantiacis, cylindraceis, primo clausis, dein apertis, margine denticulato, dein integro, $^1/_2$ mm. altis, 350-400 μ. latis; æci- 1034

diosporis subglobosis v. ellipticis, levibus, 15-20 μ. longis, aurantiacis; soris teleutosporiferis hypophyllis, minutis, circulariter dispositis, 2-4 mm. diam., confluentibus, primo epidermide tectis et pallide castaneis, dein nudis et obscure castaneis; teleutosporis ellipticis v. oblongo-ellipticis, 30-35 × 19-22, primo subhyalinis, dein pallide brunneis, ad septum leniter constrictis, apice plerumque regulariter rotundatis et leviter incrassatis, inferne rotundatis v. sæpe basi leviter angustatis, episporio glabro, pedicello firmo, persistente, usque ad 150 μ. longo, hyalino.

Hab. in foliis Sphæralceæ angustifoliæ pr. Mesilla, New Mexico Amer. bor. (Cockerell).

11. **Puccinia Plagianthi** Mc Alp. Roy. Soc. Victoria 1894, p. 218. — 1035
Soris teleutosporiferis rubescenti-brunneis, nudis, bullatis, sparsis; teleutosporis breviter pedicellatis, flavis, clavatis, medio leniter constrictis, loculo superiore apice rotundato, loculo inferiore plerumque basim versus angustato, concolori, 50 × 22, pedicello hyalino.

Hab. in foliis floribusque Plagianthi sidoidis, Tasmania Australiæ.

12. **Puccinia Banisteriæ** P. Henn. Hedw. 1895, p. 94. — Maculis 1036
nullis vel brunneis irregularibus, epiphyllis; soris hypophyllis, dense gregariis, pustulatis confluentibusque, ochraceo-brunneis, irregulariter dispositis, pulverulentis; teleutosporis oblongis, utrinque obtusis, rotundatis, granulatis, læte brunneis, ad septa valde constrictis, 40-50 × 18-32, episporio castaneo, dense verrucoso-granulato, 4-5 μ. crasso, pedicello hyalino usque ad 45 μ. longo.

Hab. in foliis vivis Banisteriæ spec. (Ule) et B. Clausenianæ (Glaziou) in prov. Goyaz Brasiliæ.

13. **Puccinia Tetragoniæ** Mc Alp. Agr. Gaz. Sydney. VI, 1896, p. 5, 1037
f. 19-24. — Spermogoniis aurantiacis, numerosis, aggregatis, amphigenis, 155-170 μ. diam.; spermatiis hyalinis, globosis v. ovalibus, $2\,^1/_2$-$3\,^1/_2$ μ. diam.; pseudoperidiis hypophyllis, albis, confertis, cylindraceis, margine laceratis, sæpe seriatim dispositis, 570-690 μ. diam.; æcidiosporis aurantiacis, minute verrucosis, variis, globosis, ovatis v. difformibus, 27-39 × 22-25; soris uredosporiferis amphigenis, mox nudis, bullatis, aurantiacis, plerumque orbicularibus, $1\text{-}1\,^1/_2$ mm. diam.; uredosporis aurantiacis, ovalibus, 27-32 × 22-25; soris teleutosporiferis amphigenis, nigris, compactis, bullatis, orbicularibus, irregularibus v. elongatis sparsis, epidermide tectis, dein erumpentibus; teleutosporis aureo-brunneis v. castaneis, interdum hyalinis, ellipticis, plerumque utrinque rotundatis, medio leviter

constrictis, levibus, 39-59 × 25-31, loculo superiore interdum truncato v. conico, apice leviter incrassato; pedicello longo, persistente, hyalino, usque ad 78 μ. longo, plerumque 7 μ. lato.

Hab. in foliis Tetragoniæ implexicomæ pluribus locis in Australia.

14. **Puccinia pulvinulata** Rud. — Syll. VII, p. 694 (Diagnosis incompl.). — Uredosporis membrana æquabili crassitudine, subtiliter et densissime verruculosa; teleutosporis non raro unicellularibus.

Hab. præterea in foliis Frankeniæ pulverulentæ in Africa bor.

15. **Puccinia denticulata** Otth, Bern. Mittheil. 1868, p. 69. — Bifrons, præcipue epiphylla; soris rufo-badiis, pulvinatis sæpius circinantibus, sorum centralem circumstantibus v. annulato-confluentibus; teleutosporis oblongo-ellipsoideis, utrinque æque attenuatis, biloculatibus non constrictis, levibus, flavidis, apiculo nunc late conico, nunc in denticulos 2-3 acutos diviso; stipite pallidissimo, teleutosporâ fere triplo longiore. 1038

Hab. in foliis Möhringiæ trinerviæ, Bremgartenwald Helvetiæ.

16. **Puccinia Triumfettæ** Diet. et Holw. Bot. Gaz. 1897, p. 30. — Maculis flavis, centro nigricantibus, rotundis v. irregularibus; soris hypophyllis, confluentibus, aggregatis, firmis, pulvinatis, subglobosis, obscure brunneis; teleutosporis ellipticis, oblongis v. raro clavatis aut utrinque rotundatis aut pedicellum versus angustatis, apice sæpe breviter conicis, non vel vix constrictis, 27-37 × 13-19; episporio levi, pallide fusco, apice valde incrassato (3-6 μ.). 1039

Hab. in foliis vivis Triumfettæ semitrilobæ pr. Cuernavaca in Mexico (Holway).

17. **Puccinia Oxalidis** Diet. et Ellis, Hedw. 1895, p. 291. — Soris minutissimis, epiphyllis, maculis subrotundis insidentibus; uredosporis globosis v. late ovoideis, 17-20 × 16-19, pallide luteis, verrucosis; teleutosporis bicellularibus, irregularibus, interdum latissimis, plerumque oblongis, 18-25 × 13-20, pallide luteis v. subhyalinis, levibus, pedicello sporas non superante. 1040

Hab. in foliis Oxalidis spec., Mexico (Palmer).

18. **Puccinia callaquensis** Neger. Anal. de la Univ. Santiago Chile 1896, XCIII, p. 777. — Soris uredosporiferis in foliis et caulium partibus herbaceis insidentibus, castaneis; uredosporis atrofuscis, 30 μ. diam., globosis, episporio echinulato præditis; soris teleutosporiferis striæformibus, caulicolis; teleutosporis fuscis, 40-50 μ. 1041

longis, ad septum leniter constrictis, episporio minute verrucoso indutis, pedicello brevissimo, usque 8 μ. longo suffultis.

Hab. in foliis vivis Geranii Berteroani ad pedem montis vulcani Callaqui in Chile.

1042 19. **Puccinia Correæ** Mc. Alp. Roy. Soc. Victoria 1894, p. 215. Hypophylla; soris pulvinatis, circularibus, sordide brunneis, sparsis, mox nudis; teleutosporis flavo-griseis, longe pedicellatis, elongato-fusoideis, medio constrictis, loculo superiore elongato, apice attenuato rotundatoque, loculo inferiore basim versus attenuato, 44-60 × 17-20½; pedicello dilute griseo, sporam pluries superante; mesosporis concoloribus, ovoideis, apice truncatis, 25-28 × 16-19.

Hab. in pagina inferiore foliorum Correæ Laurencianæ, Tasmania Australiæ.

1043 20. **Puccinia Gei** Mc Alp. Agr. Gaz. Sydney. 1895, n. 11. Norvbr. p. 5, f. 10-11. — Soris teleutosporiferis hypophyllis, confluentibus, maculis viridi-luteis insidentibus, obscure brunneis; teleutosporis brunneo-luteis, irregularibus, levibus, pedicellatis, fusiformibus v. clavatis, medio constrictis, episporio castaneo, 36-44 × 13-18, loculo superiore elongato, rotundato v. acutato, incrassato, 18-22 μ. longo, loculo inferiore elongato, basim versus attenuato, 16-22 μ. longo; pedicello usque ad 54 μ. longo, pellucido.

Hab. in foliis vivis Gei renifolii, Tasmania Australiæ.

1044 21. **Puccinia Onobrychidis** Otth, Bern. Mitheil. 1868, p. 68. — Cæspitulis hypophyllis, rotundis, rufis; teleutosporis brunneis, oblongis, diametro duplo longioribus, utrinque rotundato-obtusis, septo constrictis; articulo superiore plerumque majore, apiculo subconico, rotundato v. obsoleto; stipite hyalino breviusculo.

Hab. in foliis Onobrychidis sativæ pr. Genevam Helvetiæ.

1045 22. **Puccinia Chætogastræ** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 214. — Soris microscopicis, punctiformibus, totam superficiem inferiorem foliorum obtegentibus, non confluentibus, epidermide non tectis, firmis, fuscis; teleutosporis claviformibus, 80-88 × 12-18, medio non constrictis, apice rotundatis, membrana tenui, apice non incrassata, luteola, levi, contextu achroo; pedicello brevi, persistenti, hyalino.

Hab. in foliis Chætogastræ sp. in Æquatoria.

1046 23. **Puccinia sanguinolenta** P. Henn. Hedw. 1896, p. 228. — Maculis hypophyllis late effusis sanguinolentis; soris plerumque epiphyllis, raro hypophyllis, sparsis vel aggregatis, pustulatis subatris, epidermide fusca, velata cinctis; teleutosporis oblongis, interdum ovoi-

deis, apice papillatis vel subrostratis, raro subobtuso-rotundatis, medio paulo vel vix constrictis, rufobrunneis vel subcastaneis, 35-50 × 24-32, episporio levi vel granuloso-punctato 4-5 μ. crasso; pedicello 30-50 μ. longo usque ad 8 μ. crasso, superiori rufobrunneo, inferiori hyalino, interdum inflato.

Hab. in foliis Myrciæ spec. Rio de Janeiro Brasiliæ (Ule).

24. **Puccinia Adesmiæ** P. Henn. Hedw. 1896, p. 233. — Soris rami- 1047
et foliicolis, capitulis subglobosis vel irregulariter lobatis dispositis, ochraceis, subpulverulentis; uredosporis subglobosis vel late ellipsoideis 15-24 μ., pallide brunneis vel brunneo-fuscis, episporio c. 3-4 μ. crasso sublevi; teleutosporis oblongis vel late ellipsoideis utrinque rotundatis, medio 1-septatis constrictisque, fusco-brunneis 24-30 × 21-26; episporio atro-brunneo 4 μ. crasso, verruculoso; pedicello hyalino, fragili, 20 × 4.

Hab. in foliis ramisque Adesmiæ trijugæ in Sierra Velasco Argentinæ (Hieronymus).

25. **Puccinia Nesææ** (Ger.) Ell. et Ev. Bull. Torr. Bot. Club. 1895, 1048
p. 363; *Æcidium Nesææ* Ger. Bull. Torr. Bot. Club. VI, p. 47, Sacc. Syll. VII, p. 789. — Æcidiis hypophyllis, maculas epiphyllas contrapositas, purpurascenti-brunneas, margine pallidiori determinatas efficientibus; pseudoperidiis gregariis, flavescentibus, cupulatis, margine crenulato, subpulverulentis; æcidiosporis e globoso angulatis, pallidis, sublevibus 20-24 μ. diam.; soris teleutosporiferis orbicularibus, minutis, epidermide rupta cinctis, solitariis v. dense conglobatis; teleutosporis oblongis, clavato-oblongis v. oblongo-ellipticis, valde constrictis, apice valde incrassatis, plerumque hyalino-papillatis, pallide luteolo-brunneis, 30-45 × 12-15; pedicello firmo, subhyalino, sporam æquante.

Hab. in foliis caulibusque Nesææ verticillatæ pluribus locis in America boreali.

26. **Puccinia luxurians** Diet. et Neg. Engl. Jahrb. 1897, p. 158. — 1049
Æcidiis amphigenis, inferiorem paginam foliorum plane obtegentibus, in superiore sparsis v. solitariis; pseudoperidiis albis, primo cylindraceis, mox in lacinias paucas latas, reflexas divisis, caducis; æcidiosporis irregulariter ellipticis v. subglobosis, angulatis, 18-23 × 15-18, membrana tenui, subtiliter verruculosa præditis; soris circularibus, minutis v. mediocribus, obscure castaneis, nudis; uredosporis globosis v. ovoideis, 27-31 × 25-26, episporio fusco, echinulato, poris binis perforato; teleutosporis ellipticis v. obovatis, utrinque rotundatis, medio leniter constrictis, apice modice incrassatis,

fuscis, minute verrucosis, 32-43 × 24-30, pedicello brevi, deciduo suffultis.

Hab. in foliis vivis Œnotheræ muticæ in Chile (Reiche, Meyer).

27. **Puccinia Epilobii-Fleischeri** Ed. Fisch. Bull. de l'Herb. Boiss. 1897, p. 394. — Æcidiis ut in *Puccinia Epilobii-tetragoni;* soris teleutosporiferis globosis, nudis, atro-brunneis, sparsis, amphigenis; teleutosporis piriformibus v. ellipticis, basi plerumque in pedicellum attenuatis, apice obtuso-papillatis, rarius rotundatis, leniter constrictis, 28-35 × 17-21, levibus, dilute brunneis, loculo superiore breviore et latiore. 1050

Hab. in foliis vivis Epilobii Fleischeri, Helvetia. — Videtur diversa a *Puccinia Epilobii-tetragoni;* status uredosporif. deest.

28. **Puccinia Eulobi** Diet. et Holw. Erythea 1893, p. 249. — Soris uredosporiferis sparsis, erumpentibus, ovalibus, 1-2 mm., fuscis; uredosporis ovoideis v. globosis, 24-32 × 18-24, fuscidulis, minutissime echinulatis; soris teleutosporiferis longis, epidermide alutacea tectis, dein nudis, pulvinatis, atris; teleutosporis ovalibus v. fusiformibus, basi rotundatis, apice conicis v. rotundatis, medio parum constrictis, 43-66 × 18-24; episporio levi, luteolo-fusco usque castaneo, apice 6-13 μ. crasso; pedicello firmo, fuscidulo, sporis duplo longiore. 1051

Hab. in omnibus partibus Eulobi californici in California (Mc Clatchie).

29. **Puccinia Sphærostigmatis** Diet. et Neg. Engl. Jahrb. XXII, p. 353. — Soris uredosporiferis punctiformibus, vix ½ mm. diam., pulvinatis, sparsis, castaneis; uredosporis ovoideis v. subglobosis, 22-25 × 18-21, dilute fuscis, echinulatis; soris teleutosporiferis pulvinatis, circularibus v. oblongis, atris; teleutosporis forma varia, ellipticis v. fusiformibus, apice conicis, rarius rotundatis v. truncatis, basi attenuatis v. rotundatis, medio modice constrictis, 28-46 × 15-21, membrana castanea, apice incrassata, levi instructis; pedicello firmo, hyalino, usque ad 65 μ. longo. 1052

Hab. in foliis, caulibus fructibusque Sphærostigmatis tenuifolii pr. Concepcion, Chile (Neger). — *P. Eulobi* Diet. et Holw. affinis, sed teleutosporis gracilioribus ab ea distincta.

30. **Puccinia depressa** Diet. et Neg. Engl. Jahrb. 1897, p. 158. — Maculis circularibus 1-3 ½ mm. latis, supra nitidis, melleis, postea fuscis, depressis; soris hypophyllis, in petiolis elongatis, pulvina- 1053

tis, firmis, primo castaneis, mox post germinationem sporarum albido-cinnamomeis; teleutosporis clavatis, vertice rotundatis, basi plerumque attenuatis, ad septum constrictis, cellula inferiore angustiore et longitudine superiorem ovoideam v. subglobosam vulgo superante, 43-60 × 17-22, dilute fuscis, apice valde incrassatis, levibus, pedicello firmo, hyalino, mediocri.

Hab. in foliis petiolisque vivis Ribis glandulosi in valle superiore fluminis Renaico, Chile (Neger). — *Pucciniæ Parkeræ* Diet. et Holw. affinis.

31. **Puccinia Parkeræ** Diet. et Holw. Erythea 1895, p. 78. — Soris 1054
teleutosporiferis hypophyllis, pulvinatis, nigris, 1-2 mm. diam., solitariis vel plerumque in greges 2-3 mm. latos congestis, in pedicellis elongatis ibique distorsiones efficientibus; teleutosporis elongatis v. clavatis, ad septum distincte constrictis, apice rotundatis v. conicis, basi attenuatis v. rotundatis, levibus, brunneis, apice 5-8 μ. incrassatis, 35-50 × 13-19, pedicello firmo hyalino sporam æquante vel eam superante fultis.

Hab. in foliis et pedicellis Ribis lacustris in Washington Amer. bor.

32. **Puccinia Trifoliatæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 58. 1055
— Æcidiis in caulibus v. petiolis tumidulis; pseudoperidiis erumpentibus, primitus clausis, mox apertis et cupuliformibus, circiter $^1/_2$ mm. diam., tenuibus, margine denticulato; æcidiosporis ovatis v. subglobosis, 15-20 μ. diam., luteolis, episporio subtiliter echinulato; soris uredosporiferis minutis, pallide cinnamomeis, $^1/_3$-$^1/_2$ mm. diam., nudis; uredosporis obovatis v. globosis, 15-22 μ. in diametro longiore, subdense echinulatis, hyalinis, demum pallide brunneis; soris teleutosporiferis majoribus, 1 mm. diam., subnigris, nudis; teleutosporis ellipticis, 22-35 × 15-20, pallide castaneis, utrinque rotundatis, intus granulosis, ad septum vix constrictis, episporio apice vix incrassato, sicco sub microsc. striis reticulato; pedicello brevissimo, plerumque nullo.

Hab. in foliis petiolisque caulibusque Tiarellæ trifoliatæ, Washington Amer. bor. (Piper).

33. **Puccinia Saxifragæ-tricuspidatæ** P. Henn. in Allescher et P. 1056
Hennings, Pilze aus dem Umanakdistrikt, 1897, p. 2. — Soris hypophyllis, sparsis, pulvinatis, rotundatis, ochraceis, basi epidermide rupta cinctis; teleutosporis late ellipsoideis, cinnamomeis, 30–35 × 19–22, apice rotundato-obtusis haud incrassatis, medio plus minus constrictis, episporio levi, tenui, castaneo, pedicello brevi hyalino.

Hab. in foliis vivis Saxifragæ tricuspidatæ pr. Karajak-Nunatak Groenlandiæ (Vanhöffen).

34. **Puccinia Jueliana** Diet. Hedw. 1897, p. 298. — Soris teleutosporiferis foliicolis, amphigenis, circularibus v. oblongis, 1-3 mm. longis, haud raro confluentibus, bullatis, epidermide vesiculosa diu velatis, postea nudis, pulveraceis, obscure castaneis; teleutosporis oblongis, ad septum constrictis, utrinque rotundatis, apice papilla hyalina ornatis v. conoideo-incrassatis, minute verrucosis, brunneis, 35-48 × 17-20; pedicello longissimo, tenui, valde caduco. 1057

Hab. in foliis Saxifragæ aizoidis, Roisheim (Juel) et Svendborg (Lagerheim) Norvegiæ, nec non pr. Pians Tiroliæ (Sydow).

35. **Puccinia Griseliniæ** Pazschke, Hedw. 1896, p. 52. — Soris hypophyllis, diu tectis, dein epidermide fissa cinctis, in pagina foliorum superiore maculas pallidas bullosas generantibus; teleutosporis oblonge-clavatis v. rectangularibus, uniseptatis, loculis inæqualibus, superiore plerumque majore, episporio æquilater incrassato, ca. $2^1/_2$ μ. crasso præditis, ad septum constrictis, pallide fuscis, 53-68 × 13-16, paullatim in stipitem attenuatis, stipite firmo, 50-60 μ. long. suffultis. 1058

Hab. in foliis vivis Griseliniæ ruscifoliæ, Itatiaia Brasiliæ (Ule).

36. **Puccinia Philippii** Diet. et Neg. Engl. Jahrb. XXII, p. 352. — Æcidiis gregariis, hypophyllis v. petiolicolis, in foliis acervulos parvos rotundatos, in petiolis nervisque primariis foliorum elongatos constituentibus; pseudoperidiis diu clausis, deinde irregulariter fissis, margine non recurvato; æcidiosporis oblongis, ovoideis v. globosis, forma et magnitudine pervariis, 17-30 × 13-20, minute sed distincte verruculosis; cellulis pseudoperidii irregularibus, usque ad 60 μ. longis, echinulatis; soris uredosporiferis mediocribus, hypophyllis, maculis flavescentibus vel nullis insidentibus, læte cinnamomeis; uredosporis ovoideis, 25-30 × 22-27, flavescentibus, echinulatis; soris teleutosporiferis punctiformibus, sparsis, atrofuscis, pulveraceis; teleutosporis ellipticis, utrinque rotundatis, medio leniter constrictis, 28-36 × 15-23, episporio grosse et irregulariter plicato-lineolato, castaneo præditis, pedicello brevi, hyalino, fragili instructis. 1059

Hab. in foliis petiolisque vivis Osmorrhizæ Berteri frequentissime in Chile (Neger).

37. **Puccinia Ziziæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 60. — Amphigena, plerumque epiphylla; soris parvis, $^1/_4$-$^1/_2$ mm., 1060

non confluentibus, subatris, mox nudis, in maculis minutis 1-2 mm. diam., albidis, irregularibus, sæpe confluentibus insidentibus; teleutosporis obovatis, ellipticis v. oblongo-ellipticis, 22-30 = 15-20, vix constrictis, episporio levi, tenui, apice rotundato leviter incrassato; pedicello hyalino, sporam æquante.

Hab. in foliis Ziziæ cordatæ, Washington Amer. bor. (Piper).

38 **Puccinia Archangelicæ** Blytt, Christiania Vid. Selsk. Forh. 1896, n. 6, p. 51. — Soris in utraque foliorum pagina, præsertim inferiore sparsis, omnibus parvis, rotundatis, uredosporiferis in pagina inferiore, teleutosporiferis in utraque pagina; uredosporis ferrugineis, 27-32 = 21-24, ovalibus, rarius obovato-ovalibus, basi et præcipue apice valde inerassatis, aculeato-scabris; teleutosporis atro-brunneis, 30-50 = 16-19, breviter pedicellatis, medio leniter constrictis, episporio levi, vertice nullo modo inerassato præditis. 1061

Hab. in foliis vivis Archangelicæ littoralis in Norvegia australi.

39. **Puccinia Magydaridis** Pat. et Trab. Bull. Soc. Mycol. de France 1897, p. 205, tab. XIII, p. 205. — Soris uredosporiferis hypophyllis, fulvis, punctiformibus, $^1/_3$-$^1/_2$ mm. diam., epidermide irregulariter rupta cinctis; uredosporis globosis v. ovoideis, luteis, aculeolatis, 25 μ. diam.; soris teleutosporiferis majoribus, brunneis v. atro-brunneis; teleutosporis variis, aliis cylindraceis, aliis ovoideis v. difformibus, apice obtusis, attenuatis, 35-45 = 20-30; episporio crasso, sinuoso, reticulato alveolatoque, pedicello brevi, hyalino. 1062

Hab. in foliis vivis Magydaridis tomentosæ in Algeria (Trabut) — *P. Smyrnii* Biv. proxima, sed præcipue teleutosporis majoribus irregularibusque diversa.

40. **Puccinia Conii** (Strauss) Fckl. Symb. myc. p. 53; Lagh. Ured. herb. Fries. 1895, p. 54; *Uredo Conii* Str. in Wetter. Ann. II, p. 93; *P. bullata* Wint. Die Pilze I, p. 191, ex parte; *P. bullata* Plowr. Brit. Ured. p. 184, ex parte; *P. bullata* De Toni in Sacc. Syl. VII, p. 634, ex parte; *P. bullata* Schröt. Pilze Schles. p. 335, ex parte. — Soris uredosporiferis amphigenis, plerumque hypophyllis, luteo-brunneis; uredosporis ovoideis, 30-40 = 22-27, membrana lutescia, ad basim levi, versus apicem aculeata et inerassata, poris germinationis æquatorialibus ternis; soris teleutosporiferis caulincolis v. hypophyllis, sparsis, parvis, ovalibus v. oblongis, primo epidermide tectis, plumbeis, dein, epidermide fissa, brunneis et pulveraceis; teleutosporis forma varia, plerumque ovatis, medio 1063

leniter constrictis, 40-50 × 25-30, poro germinationis cellulæ inferioris ad septum posito, membrana luteolo-fusca, distincte verruculosa, ad apicem sporæ paullo incrassata et sæpe papilla achroa aucta.

Hab. in foliis caulibusque vivis Conii maculati in Germania, Austria, Hungaria, Italia, Gallia, Britannia, Hollandia, Dania.

41. **Puccinia Ligustici** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 363. 1064
— Soris teleutosporiferis hypophyllis, minutis, castaneis, erumpentibus, epidermide rupta cinctis, in pustulas suborbiculares 1 $^1/_2$-2 mm. longas latasque confertissimis in maculis minutis, pallidis, plerumque marginalibus insidentibus; teleutosporis ellipticis v. oblongo-ellipticis, utrinque obtuse rotundatis, pallide brunneis, vix constrictis, 22-30 × 15-20, episporio apice non distincte incrassato, aspero.

Hab. in foliis Ligustici scopulorum, Colorado, Amer. bor. (Démetrio).

42. **Puccinia luteo-basis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 457. 1065
— Soris minutis, circiter $^1/_2$ mm. diam., orbicularibus, sparsis, maculis luteis insidentibus, castaneis, initio immersis, mox erumpentibus, epidermide rupta cinctis; pseudoperidiis minute cupulatis; teleutosporis oblongo-ellipticis, luteo-brunneis, plus minusve irregularibus, apice rotundatis vel obtuso-acutatis, leviter constrictis, episporio levi, apice non incrassato, intus granulosis, 20-32 × 15-20, pedicello hyalino sporam æquante fultis.

Hab. in petiolis et in pagina foliorum inferiore Umbelliferæ cujusdam, Colorado Amer. bor.

43. **Puccinia norica** Glow. Mittheil. Nat. Ver. Steiermark, vol. XXVIII 1066
(1891) 1892, p. LXXXVIII. — Soris teleutosporiferis brunneis, subglobosis, usque 1 mm. diam., solitariis v. pluribus confluentibus ac tum pustulas irregulares applanatas efformantibus, ab epidermide fissa cinctis; teleutosporis forma variantibus, plerumque oblongiss v. ovoideis, interdum irregularibus, basi plerumque rotundatis rarius attenuatis, apice rotundatis v. aliquantulum protractis, medio plus minusve constrictis, semper papilla hyalina v. pallida vestitis, levibus, brunneis, 34-50 × 22-25, longe pedicellatis.

Hab. in pagina super. foliorum Valerianæ celticæ, summo apice montis Hochreichart Styriæ.

44. **Puccinia Wettsteinii** De Toni — Sacc. Syll. VII, p. 707 (Diagn. incompl.). — Uredosporis in soros minutos rotundatos, castaneo-atris, aculeatis, 18-21 × 15-20.

Hab. in foliis caulibusque Jurineæ albicaulis, J. linearifoliæ, J. polycloni, J. stœchadifoliæ, Cherson Rossiæ.

45. **Puccinia Tracyi** Sacc. et Syd. *Puccinia irregularis* Ell. et Tracy Bull. Torr. Bot. Cl. 1897, p. 283. — Amphigena, sæpius autem hypophylla; soris minutis subhemisphæricis, in maculis pallidis minutis aggregatis v. subcircinatis; teleutosporis ellipticis v. oblongo-ellipticis, constrictis, 50-70 × 20-30, episporio levi pallide brunneo, apice valde incrassato ibique in papillam subhyalinam conicam abeunte præditis, pedicello dilute colorato, 80-110 μ. longo, suffultis; mesosporis 30-40 × 18-22. 1067

Hab. in foliis Solidaginis spec. in Colorado, in foliis Solidaginis spectabilis var. rigidiusculæ in Nebraska, Amer. bor. — Soris multo minoribus, angustioribus, sporis longius pedicellatis præcipue a *Puccinia Solidaginis* distincta species.

46. **Puccinia Tithoniæ** Diet. et Holw. Bot. Gaz. 1897, p. 31. — Soris uredosporiferis plerumque hypophyllis, minutis, sparsis, cinnamomeis, pulverulentis; uredosporis globosis v. ovatis, 24-30 × 20-26, membrana tenui, fusca, brevissime echinulata; soris teleutosporiferis plerumque hypophyllis, minutis, sparsis, nigris; teleutosporis ellipticis v. ovatis, utrinque rotundatis, leniter constrictis, 38-52 × 22-27, levibus, castaneis, apice calyptratis v. rarius conico-incrassatis, plerumque pallidioribus; pedicello hyalino, subfirmo, sporam superante. 1068

Hab. in foliis Tithoniæ cubifloræ et tagetifloræ in Mexico (Holway).

47. **Puccinia abrupta** Diet. et Holw. Hedw. 1898, p. 205. — Soris in caulibus petiolisque callos longos efficientibus, in foliis plerumque epiphyllis, mediocribus, irregularibus obscure brunneis, nudis, pulveraceis; uredosporis globosis, late ellipticis vel ovoideis, 23-26 × 22-25, flavo-brunneis, echinulatis, poris 2 germinationis instructis; teleutosporis late ellipticis, basi lata rotundatis, vertice hyalinis et cucullato-incrassatis, medio lenissime vel non constrictis, 30-38 × 25-29, episporio levi, fusco præditis, pedicello longo, hyalino, facile deciduo suffultis. 1069

Hab. in caulibus, petiolis et foliis Viguieræ pictæ et V. excelsæ, Mexico (Holway).

48. **Puccinia tageticola** Diet. et Holw. Bot. Gaz. 1897, p. 26. — Soris amphigenis, sparsis, minutis, in caulibus et pedicellis majoribus, pulvinatis, nudis; soris uredosporiferis fuscis; uredosporis ellipticis, obovatis v. globosis, 24-31 × 17-24, pallide fuscis, echi- 10

nulatis; soris teleutosporiferis nigris; teleutosporis ellipticis, utrinque rotundatis, leniter constrictis, 44-52 × 30-35, episporio levi, castaneo, apice late hyalino-incrassato; pedicello usque ad 100 μ. longo, hyalino, firmo.

Hab. in foliis vivis Tagetis tenuifoliæ, Guadalajara, Mexico (Holway).

49. **Puccinia Helenii** Schw. — Syll. VII, p. 708. (Diagnosis incompl.). — Maculis luteis; soris hypophyllis, parvis, dense congregatis, firmis, fuscis; teleutosporis oblongis v. clavatis, medio constrictis, apice rotundatis, basi attenuatis, 35-40 × 12-15, membrana levi, luteola, ad apicem sporæ valde incrassata; pedicello persistenti pallide luteolo.

Hab. in foliis Helenii autumnalis pr. Bethlehem in Pensylvania Amer. bor.

50. **Puccinia rupestris** Juel. On nögra heter. Ured. p. 56; Oefversigt af K. Vet.-Akad. Förhandl. 1894, n. 8, p. 414 et 1896, n. 3, p. 214; *Æcidium Saussureæ* Juel. l. c. p. 53. — Pseudoperidiis tenuibus in maculis parcissimis subrotundis atro-violaceis, hypophyllis, cellulis peridialibus circiter 20 μ. latis; spermogoniis nullis; æcidiosporis 15-20 μ. diam.; uredosporis in soros obscure brunneos dispositis, 25 × 19, luteo-brunneis, echinulatis, poris germinationis ternis; teleutosporis in soros oblongos, pustulatos, nigros, mox nudos congestis, 35-50 × 15-20, incrassatis, pedicello firmo, 30-50 μ. longo. 1071

Hab. æcidia in foliis Saussureæ alpinæ, uredo- et teleutosporæ in foliis culmisque Caricis rupestris in Jemtlandia Sueciæ.

51. **Puccinia Clarioneæ** Diet. et Neg. Engl. Jahrb. 1897, p. 160. — Soris sparsis, circularibus, $^1/_2$-1 mm. diam., epidermide vesiculosa tectis, obscure castaneis; teleutosporis difformibus ut plurimum oblongis v. rectangularibus, angulatis, ad septum leniter vel non constrictis, 36-63 × 21-33, episporio tenui, flavo-brunneo, punctato, apice non incrassato præditis. 1072

Hab. in foliis Clarioneæ spec. in Chile.

52. **Puccinia Jungiæ** P. Henn. Hedw. 1897, p. 214. — Soris teleutosporiferis hypophyllis, minutis, sparsis, atris; teleutosporis oblonge ellipsoideis vel ovoideis, apice rotundato-obtusis, medio plus minus constrictis, brunneis, 35-50 × 25-30, episporio levi, vertice incrassato; pedicello hyalino, usque ad 70 μ. longo, 4-9 μ. crasso, persistente. 1073

Hab. in foliis Jungiæ floribundæ in Brasilia (Sello).

53. **Puccinia Joannesiæ** P. Henn. Hedw. 1896, p. 229. — Maculis 1074
subflavis vel fuscidulis, irregularibus; soris uredosporiferis hypophyllis sparsis, pulvinatis brunneis, pulverulentis; uredosporis subglobosis vel late ellipsoideis, fuscobrunneis, 15-18 μ. diam., episporio verrucoso; soris teleutosporiferis sparsis vel subgregariis, pulvinatis, atris; teleutosporis oblongis vel late ellipsoideis, apice obtusis vel subapplanatis, medio constrictis, rufobrunneis vel castaneis, 18-25 × 15-22, episporio atro-castaneo, dense verrucoso. 3 μ. crasso, verrucis hemisphæricis ca. 1 μ. diam., pedicello curvato v. recto, hyalino usque ad 30 μ. longo.

Hab. in foliis Joannesiæ brasiliensis, in prov. St. Catharina Brasiliæ (Ule).

54. **Puccinia Lagophyllæ** Diet. et Holw. Erythea 1893, p. 250. — 1075
Maculis luteolis v. nullis; soris uredosporiferis amphigenis, sparsis, minutis, fuscis; uredosporis ovoideis v. subglobosis, fuscis, subtiliter echinulatis, episporio crasso, 27-31 × 25-29; soris teleutosporiferis atris, circularibus v. oblongis, 1-2 mm. diam., sæpe circinatis confluentibusque; teleutosporis ovoideis v. ellipticis, utrinque rotundatis v. inferne attenuatis, ad septum leniter constrictis, levibus, castaneis, cellula inferiore plerumque pallidiore, apice incrassatis (6-9 μ.), 38-55 × 22-32; pedicello hyalino, caduco, sporam superante.

Hab. in foliis vivis Lagophyllæ congestæ, Berkeley Californiæ (Blasdale).

55. **Puccinia Leuceriæ** Diet. et Neg. Engl. Jahrb. 1897, p. 160. — 1076
Soris amphigenis, laxe gregariis, minutis, fuscis, nudis, pulveraceis; teleutosporis ellipticis, utrinque rotundatis, rarius basi attenuatis, medio levissime constrictis, magnitudine varia, 33-50 × 21-33, episporio $3\,^1/_2$-4 μ. crasso, apice non incrassato, flavo-brunneo, verruculoso indutis; pedicello brevi, caduco.

Hab. in foliis Leuceriæ paniculatæ, in Chile.

56. **Paccinia Melantheræ** P. Henn. Hedw. 1897, p. 214. — Soris hy- 1077
pophyllis, minutis, sparsis v. aggregatis, ferrugineis, maculis fuscis; uredosporis subglobosis v. late ellipsoideis, fuscis, 18-23 μ., episporio minute verrucoso; teleutosporis late ellipsoideis v. subovoideis, apice rotundatis, incrassatis, medio septatis, haud constrictis, cinnamomeis, 32-42 × 24-30; pedicello brevi, subhyalino.

Hab. in foliis vivis Melantheræ deltoideæ pr. Blumenau Brasiliæ (Ule).

57. **Puccinia Microseris** Mc Alp. Agr. Gaz. Sydney. 1895, n. 11. 1078

Novbr. p. 6, fig. 12-13. — Soris brunneis, globosis v. ellipticis, gregariis, interdum confluentibus, epidermide rupta cinctis; uredosporis globosis, interdum subovalibus, citrinis, levibus, 27 × 22 vel 25-27 μ. diam., teleutosporis immixtis; teleutosporis luteo-brunneis, clavatis v. oblongis, medio vix vel non constrictis, levibus, loculo superiore convexo, obscuriore, loculo inferiore triangulari, 32-38 × 19-20; pedicello caduco.

Hab. in foliis Microseris Forsteri, Victoria Australiæ.

58. **Puccinia Enceliæ** Diet. et Holw. Bot. Gaz. 1897, p. 32. — Soris 1079
hypophyllis, sparsis, nudis; soris uredosporiferis fuscis; uredosporis ellipticis vel globosis, 20-25 × 19-23, fuscis, echinulatis; soris teleutosporiferis atro-fuscis; teleutosporis ellipticis v. obovatis, utrinque rotundatis, lenissime constrictis, 31-42 × 23-27, membrana levi, castanea, apice dilute applanato-papillata, ca. 7 μ. crassa; pedicello sporam superante, hyalino.

Hab. in foliis vivis Enceliæ mexicanæ pr. Cuernavaca in Mexico (Holway). — *Pucciniæ Helianthi* Schw. valde affinis, sed differt teleutosporis minoribus.

59. **Puccinia magnœcia** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 59. 1080
— Soris latis, 2-3 mm., bullatis, subatris, hypophyllis, pro parte epidermide tectis, maculas rubro-brunneas in pagina foliorum superiore efformantibus; teleutosporis gracili-clavatis, 40-50 × 14-16, pallide brunneis, basi subhyalinis, leniter constrictis, apice plerumque regulariter rotundatis v. interdum obtuso-punctatis truncatisve, episporio levi, apice valde incrassato obscuriore; pedicello sporam æquante.

Hab. in foliis Asteris pulchelli, Washington Amer. bor. — A *P. Asteris* differt soris magnis, obscuris.

60. **Puccinia Leontopodii** Vogl. Bull. Soc. bot. Ital. 1896, p. 37. — 1081
Hypophylla; maculis minutis, sparsis, concavis, prominulis, testaceis; soris verruciformibus, gregariis, griseo-brunneis, initio epidermide tectis, mox erumpentibus et liberis; teleutosporis ovato-oblongis, medio leviter constrictis, apice rotundatis, 40-50 × 20-22, episporio fusco, levi, in parte media incrassato, pedicello subcolorato, tenui, 80-90 μ. longo, fultis.

Hab. in foliis Leontopodii alpini in Valle Colla in Helvetia italica.

61. **Puccinia irregularis** Diet. Hedw. 1897, p. 33. — Acervulis in ma- 1082
culis flavescentibus vel fuscis insidentibus, gregariis vel sparsis, epidermide cinctis, castaneis; uredosporis late ellipticis, subglobosis v.

oblongis, 25-30 × 21-26, castaneis (eodem colore, quo teleutosporis), echinulatis; teleutosporis forma varia et irregulari, ellipticis vel oblongis, medio leniter constrictis, apice paullo vel vix incrassatis, castaneis, levibus, 36-50 × 20-27; pedicello brunneolo, brevi.

Hab. in foliis vivis Verbesinæ subcordatæ, Serra Geral Brasiliæ (Ule).

62. **Puccinia Verbesinæ** Schw. — Syll. VII, p. 706 (Diagnosis incompl.). — Æcidiis hypophyllis, nervicolis, dense congregatis, cupuliformibus; æcidiosporis rotundatis, ca. 18 μ. diam., membrana achroa, tenui, subtilissime verruculosa; uredosporis rotundato-ovatis v. subglobosis, 20-25 μ. diam., membrana æquabili crassitudine, luteola, aculeata, poris germinationis binis; teleutosporis ovatis, utrinque rotundatis, medio leniter constrictis, 40-45 × 30, membrana castanea ad apicem sporæ incrassata, subtiliter verruculosa; pedicello basi caduco.

Hab. in foliis Verbesinæ Siegesbeckiæ in Carolina infer., V. australis, scabræ et helianthoidis in Argentina.

63. **Puccinia Synedrellæ** Lagh. in Sydow, Ured. n. 373; Syll. XI, p. 204 (nomen); *P. Synedrellæ* P. Henn. in Hedw. 1898, p. 277. — Maculis fuscis inflatis; soris teleutosporiferis hypophyllis, aggregatis sæpe confluentibus, ferrugineis; teleutosporis clavatis apice obtusis subincrassatis, interdum subacutiusculis, flavo-brunneis v. subfuscis, medio septatis constrictisque, 30-45 × 13-18; pedicello concolori, 20-30 × 5–7, consistenti.

Hab. in foliis Synedrellæ nodifloræ, Kingston et Port Antonio ins. Jamaicæ.

64. **Puccinia Flourensiæ** P. Henn. Hedw. 1896, p. 235. — Soris uredo- 1083
sporiferis amphigenis, minutis, rotundatis, applanatis, pallido-brunneis; uredosporis subglobosis vel late ellipsoideis, flavis vel brunneolis, 30-38 × 28-33, episporio subbrunneo, minute aculeato; soris teleutosporiferis punctiformibus, pulvinato-rotundatis, atris; teleutosporis late ellipsoideis interdum subrectangularibus vel subglobosis continuisque, læte castaneis medio 1-septatis, paulo constrictis, apice rotundatis, incrassatis, interdum subgibbosis, 30-42 × 28-36, episporio levi, 3-5 μ. crasso; pedicello usque ad 80 μ. longo, ca. 8 μ. crasso, hyalino.

Hab. in foliis Flourensiæ campestris pr. Cordoba Argentinæ (Hieronymus).

65. **Puccinia Aspiliæ** Diet. Hedw. 1897, p. 30. — Acervulis hypo- 1084
phyllis, punctiformibus, sparsis; uredosporis subglobosis, ca. 27 μ.

diam., fuscis, brevissime echinulatis; teleutosporis ellipticis vel oblongis, sæpe irregularibus, utrinque rotundatis, ad septum vix constrictis 30-42 × 17-29, membrana levi castanea, apice modice incrassata instructis; pedicello mediocri, fragili.

Hab. in foliis Aspiliæ buphthalmifoliæ, Serra Geral Brasiliæ (Ule).

66. **Puccinia Erechthitis** Mc Alp. Roy. Soc. Victoria 1894, p. 216. 1085
— Æcidiis foliicolis caulicolisque, inflationes efficientibus, initio pallide luteis, demum aurantiacis, seriatim v. irregulariter dispositis; pseudoperidiis cupulatis, margine albo, revoluto; æcidiosporis variis, irregulariter globosis v. ovalibus, aurantiacis, levibus, 16-19 × 12-17; soris teleutosporiferis diu epidermide tectis, nigris, confertis, pulvinatis; teleutosporis luteo-brunneis, pedicellatis, elongatis, medio constrictis, loculo superiore obscure brunneo, apice roturdato incrassatoque, loculo inferiore plerumque luteo, basim versus angustato, elongato, cuneiformi, 54-57 × 19-25; pedicello persistente, pallidissime luteo v. pellucido, 38 μ. longo.

Hab. in foliis caulibusque Erechthitis quadridentatæ, Victoria Australiæ.

67. **Puccinia Melampodii** Diet. et Holw. Bot. Gaz. 1897, p. 32. — 1086
Maculis pallide flavis v. fuscidulis; soris hypophyllis, minutis, pulvinatis, atro-fuscis, plerumque irregulariter aggregatis; teleutosporis oblongis v. fusiformibus, apice acutato-rotundatis v. angustatis, pedicellum versus angustatis, modice constrictis, 42-60 × 15-20, episporio levi, fusco, apice valde incrassato (5-10 μ.); pedicello firmo, usque ad 27 μ. longo.

Hab. in foliis vivis Melampodii spec. pr. Cuernavaca in Mexico (Holway).

68. **Puccinia decora** Diet. in litt. *Puccinia pinguis* Diet. et Holw. 1087
Bot. Gaz. 1897, p. 34. — Soris sparsis amphigenis, plerumque hypophyllis minutis; soris uredosporiferis brunneis, nudis, pulverulentis; uredosporis globosis v. ovatis, 28-33 × 24-30, echinulatis, brunneis, poris germinationis binis præditis; soris teleutosporiferis nigris pulverulentis; teleutosporis late ellipticis utrinque rotundatis, vix constrictis, 48-53 × 33-40, apice papilla brevi hyalina donatis, episporio levi, castaneo, 5-6 μ. crasso præditis, pedicello facile deciduo, sporam superante hyalino suffultis.

Hab. in foliis vivis Brickelliæ spec. pr. urbem Mexico (Holway).

69. **Puccinia præcox** Bubák Verhandl. des naturf. Ver. in Brünn. 1088

Bd. XXXVI, 1898, p. 4 (extr.); *Æcidium præcox* Bub. Verhandl. k. k. Zool.-botan. Gesellsch. in Wien. 1898, p. 20 (extr.). — Pseudoperidiis amphigenis in maculis luteolis v. rubescentibus irregularibus rarius orbicularibus congregatis, raro nervicolis, erumpentibus parvis, cupuliformibus, margine reflexo denticulato; cellulis pseudoperidii plerumque ellipticis vel oblongo-deltoideis haud in series regulares dispositis; æcidiosporis polygono-globosis, ovoideis v. oblongis, 17 $^1/_2$-31 × 17 $^1/_2$-22, aurantiacis, membrana achroa subtiliter verruculosa præditis; soris uredosporiferis brunneis pulvinatis, minutis; uredosporis castaneis, globosis, ellipticis v. ovoideis 22-33 × 20-29, membrana aculeata donatis, poris germinationis duobus præditis; soris teleutosporiferis atro-brunneis, pulvinatis, minutis, solitariis in maculis luteolis, sæpius confluentibus, mox nudis; teleutosporis late ellipticis v. ovoideis, utrinque rotundatis, medio vix v. non constrictis, 30-46 × 24-31, membrana intense castanea, subtiliter verruculosa, pedicello brevi, gracili, caduco suffultis.

Hab. in foliis Crepidis biennis ad Hohenstadt Moraviæ, frequentissime.

70. **Puccinia major** Diet. Mittheil. des Thüring Bot. Vereins, Heft VI, 1089
1894. — Æcidiis numerosis, maculis flavis, flavo-rubris v. rubiginosis insidentibus; pseudoperidiis in acervulos subrotundos v. in petiolis oblongos compositis, humilibus, margine albo reflexo laciniato instructis; æcidiosporis irregulariter polyhedricis, ovoideis v. rarius subglobosis, 20-30 × 16-24, aurantiacis, subtiliter verrucosis; soris uredosporiferis cinnamomeis; uredosporis ovoideis v. ellipticis; rarius globosis, 24-30 × 21-26, membrana brunnea echinulata præditis; soris teleutosporiferis atro-brunneis, minutis, solitariis, per ambas foliorum superficies irregulariter sparsis interdumque maculis minutis flavidis insidentibus; teleutosporis ellipticis v. ovoideis, utrinque rotundatis, medio parum constrictis, 33-48 × 22-30, castaneis, subtiliter verrucosis, pedicello brevi caduco suffultis.

Hab. in foliis Crepidis paludosæ passim in Germania et Austria. — *P. Lampsanæ,* quacum hucusque confusa, affinis, sed æcidiosporis, uredosporis teleutosporisque multo majoribus facile distinguenda.

71. **Puccinia Hypochœridis** Mc Alp. Roy. Soc. Victoria 1894, p. 217. 1090
— Pseudoperidiis amphigenis, maculis viridi-luteis v. brunneolis orbicularibus insidentibus, aggregatis, aurantiacis, rotundis v. ellipticis; æcidiosporis subglobosis v. ovalibus, pallide aurantiacis,

14-16 × 12½; soris teleutosporiferis æcidiis immixtis, nigris, ellipticis, interdum confluentibus, epidermide fissa cinctis; teleutosporis castaneis, pedicellatis, medio constrictis, 47-50 × 19-23, loculo superiore obscure brunneo, rotundato, apice incrassato, loculo inferiore pallide brunneo, plerumque basim versus angustato; pedicello hyalino, interdum persistente, 24 μ. longo.

Hab. in foliis Hypochœridis radicatæ, Victoria Australiæ.

72. **Puccinia Erigerontis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 282. 1091
— Soris amphigenis, nudis, ½-¾ mm. diam., plerumque aggregatis, interdum subcircinatim dispositis, orbicularibus, nigris, macula pallide flava insidentibus; teleutosporis oblongis v. oblongo-ellipticis, medio septatis, valde constrictis, interdum papillatis, 38-60 × 15-21, flavo-brunneis, loculo superiore plerumque latiore ac obscuriore, granuloso, loculo inferiore pallidiore, basi rotundato; episporio levi, apice incrassato; pedicello sporam parum superante, persistente, superne flavo.

Hab. in foliis Erigerontis cæspitosi, Wyoming Amer. bor.

73. **Puccinia dovrensis** Blytt, Christiania Vid. Selsk. Forh. 1896, 1092
n. 6, p. 54. — Soris sat magnis, rotundatis, sæpe confluentibus in utraque foliorum pagina, atro-brunneis, omnibus teleutosporiferis; teleutosporis breviter pedicellatis, 38-46 × 16-19, ovali-oblongis, utrinque rotundatis, rarius basim versus aliquantulum attenuatis, medio aliquid constrictis; episporio scabro, apice aliquid incrassato, papilla 5-6 μ. alta instructo; pedicello 5-6 μ. longo.

Hab. in foliis Erigerontis alpini, Dovre, Norvegia. — A *P. Asteris* differt sporis apice multo minus incrassatis, basi plus rotundatis minusque attenuatis.

74. **Puccinia distincta** Mc Alp. Agr. Gaz. Sydney. VI, 1896, p. 4, 1093
fig. 12-14. — Pseudoperidiis in maculis amphigenis decoloribus insidentibus, pulvinatis, rotundis v. ovalibus, albis, margine lacerato, 253-282 μ. diam.; æcidiosporis subglobosis, v. ovalibus, pallide luteis v. pellucidis, levibus, 14-20 × 11-12½; soris teleutosporiferis scapicolis, æcidiis immixtis, nigricantibus, ovalibus, ½-¾ mm. longis, epidermide rupta cinctis; teleutosporis castaneis, clavatis, levibus, medio constrictis, 34-50 × 19-22, loculo superiore plerumque obscuriore, apice rotundato incrassatoque; pedicello persistente, pallide luteo, usque ad 51 μ. longo; mesosporis numerosis, elongato-clavatis v. subovatis, castaneis, plerumque apice incrassatis, 34-37 μ. longis.

Hab. in foliis et scapis Bellidis perennis pr. Melbourne Australiæ.

75. **Puccinia Conyzæ** P. Henn. Hedw. 1896, p. 239; *P. sordida* Diet. Hedw. 1896, p. 31. — Soris uredosporiferis hypophyllis, hemisphæricis, diutius tectis, dein pallide ochraceis, singularibus, gregariis; uredosporis subglobosis ovoideis vel ellipsoideis, flavo-brunneis, aculeatis, 23-26 × 15-18; soris teleutosporiferis hypophyllis in maculis fuscis, gregariis vel solitariis atro-fuscis, pulvinatis; teleutosporis oblongis, clavatis vel turbinatis sæpe acutangulis, fusco-brunneis, apice valde incrassatis, obtusis, interdum applanatis vel oblique subapiculatis, medio vix constrictis, 30-50 × 25-30, episporio levi; pedicello brevi, hyalino. 1094

Hab. in foliis Conyzæ triplinerviæ et Baccharidis triplinerviæ in prov. St. Catharina Brasiliæ (Ule).

76. **Puccinia conferta** Diet. et Holw. Erythea 1893, p. 250. — Hypophylla; soris maculis flavis insidentibus, minutis, 0,3-0,5 mm. diam., pulvinatis, atris, dense confertis, interdum totum folium occupantibus; teleutosporis levibus, castaneis, clavatis, medio constrictis, apice conicis v. rotundatis, valde incrassatis, cellula inferiore plerumque attenuata, cuneiformi, 47-75 × 24-30; pedicello firmo, sporam circiter æquante. 1095

Hab. in foliis vivis Artemisiæ spec. in California (Holway).

77. **Puccinia recondita** Diet. et Holw. Erythea 1894, p. 128. — Maculis dilute flavis v. nullis; soris hypophyllis, minutis, pulvinatis, in greges subrotundos 2-5 mm. diam. dense confertis, cinnamomeis; teleutosporis clavatis, apice incrassatis (5-8 μ.), rotundatis v. plerumque conicis, basi attenuatis v. rotundatis distincte constrictis, pallide brunneolis, levibus, 40-56 × 15-23, pedicello firmo hyalino sporam subæquante fultis. 1096

Hab. in foliis Artemisiæ heterophyllæ, Pasadena Californiæ (Mc Clatchie).

78. **Puccinia mirifica** Diet. et Holw. Erythea 1895, p. 79. — Soris vulgo epiphyllis, sæpe totam foliorum superficiem obtegentibus, minutis, castaneis, epidermide inflata diu tectis, dein nudis, pulverulentis confluentibusque; uredosporis plerumque ovoideis, 24-40 × 18-34, echinulatis; teleutosporis in iisdem soris evolutis, plerumque utrinque rotundatis, ad septum leniter constrictis, 23-29 × 38-59, membrana verrucosa, apice non incrassata præditis; pedicello brevi, deciduo; mesosporis numerosis, 23-25 × 33-45. 1097

Hab. in foliis Borrichiæ frutescentis, Texas Amer. bor.

79. **Puccinia Bidentis** Diet. et Holw. Bot. Gaz. 1897, p. 32. — Soris 1098
plerumque hypophyllis, sparsis, minutis, brunneis in maculis dilute flavis; teleutosporis interdum bicellularibus, plerumque tamen unicellularibus et ellipticis, ovatis v. globosis, 19-30 × 17-23; sporis bicellularibus varia forma et magnitudine, ellipticis v. oblongis, raro pedicellum versus angustatis, leniter constrictis, 24-38 × 15-25, castaneis, subtiliter punctatis; pedicello firmo, plerumque sporam superante, sursum colorato.

Hab. in foliis vivis Bidentis spec. pr. Cuernavaca in Mexico (Holway).

80. **Puccinia Mutisiæ** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 213. — Sper- 1099
mogoniis epiphyllis, congregatis; soris uredosporiferis hypophyllis vel caulincolis, magnis, fuscis; uredosporis ovoideis vel ovato-rotundatis, 33-45 × 24-27, membrana subcrassa, luteola, aculeolata, contentu achroo; soris teleutosporiferis hypophyllis, parvis, sparsis, fuscis, epidermide non tectis, in maculis pallidis insidentibus; teleutosporis anguste fusiformibus, 90-125 × 18-30, utrinque attenuatis, medio non vel paullo constrictis, membrana tenui, luteola, levi, apice incrassata et verruculoso-striata, contentu luteolo, pedicello tenui, hyalino, longiusculo, persistenti suffultis, mox germinantibus.

Hab. in foliis caulibusque Mutisiæ sp. in Æquatoria.

81. **Puccinia notabilis** Tracy et Earle, Bull. Torr. Bot. Club. 1895, 1100
p. 174. — Amphigena; soris nigris, confluentibus, hemisphæricis v. irregularibus, bullas fusiformes et gallæformes 3-4 cm. longas efformantibus, interdum caules involventibus; teleutosporis ovalibus, obtuse rotundatis, leniter constrictis, episporio levi, apice incrassato, 55-60 × 30-33; pedicello hyalino v. subhyalino, longissimo, flexuoso, 225-275 μ.

Hab. in bracteis, petiolis caulibusque Plucheae borealis, New Mexico, Amer. bor.

82. **Puccinia Pereziæ** P. Henn. Hedw. 1896, p. 241. — Maculis flavis 1101
rotundatis; soris hypophyllis sparsis vel aggregatis pulvinatis, cinnamomeis, epidermide rupta cinctis, ca. $^1/_3$ mm. diametro; teleutosporis ovoideis vel ellipsoideis, apice rotundato-obtusis non incrassatis, medio paulo constrictis, brunneis, 28-38 × 18-28, episporio castaneo, levi, ca. 3 μ. crasso; pedicello hyalino, fragili plus minus elongato.

Hab. in foliis vivis Pereziæ cardunculoidis, Ciénega Sierra de Tucuman Argentinæ (Lorentz).

83. **Puccinia Piptocarphæ** P. Henn. Hedw. 1896, p. 240. — Uredo- 1102
soris hypophyllis sparsis vel subgregariis, pulvinatis ochraceis; uredosporis subglobosis, ovoideis vel ellipsoideis, fuscis, dense aculeatis, 26-32 × 23-28; soris teleutosporiferis sparsis, hypophyllis, pulvinatis, minutis, atris; teleutosporis clavatis vel oblongis flavofuscidulis, levibus, 30-44 × 17-26, apice rotundatis, subincrassatis, medio constrictis, episporio fuscidulo vel brunneo; pedicello hyalino, brevi.

Hab. in foliis vivis Piptocarphæ oblongæ, Prov. St. Catharina Brasiliæ (Ule).

84. **Puccinia spectabilis** Otth, Bern. Mittheil. 1865, p. 176. — Ma- 1103
cula expallida demum brunnescente, subtus bullata, supra excavata; soris magnis, hypophyllis, 2-6 mm. lat., parcis e badio atropurpureis, compactis, epidermide rupta cinctis; teleutosporis fulvobrunneis nunc piriformibus, nunc oblongis, ad septum constrictis, loculo inf. nunc acutato minori, nunc utroque subæquali apicibus acutato; stipite dilute colorato, teleutosporam subæquante.

Hab. in pag. inf. foliorum Cirsii ochroleuci pr. Giessbach Helvetiæ. — Comparanda cum speciebus cirsiicolis posterius descriptis.

85. **Puccinia Pterocauli** P. Henn. Hedw. 1896, pag. 240. — Soris 1104
amphigenis, gregariis vel sparsis, pulvinatis, atrofuscis; uredosporis subglobosis, ovoideis vel subellipsoideis, læte brunneis, 20-33 × 20-30, episporio castaneo, aculeato, 3 μ. crasso; teleutosporis clavatis interdum oblongis, 40-55 × 18-28, apice rotundato-obtusis vel subpapillatis usque ad 5-8 μ. incrassatis, medio constrictis, episporio levi, castaneo; pedicello hyalino vel subbrunneolo plus minus elongato, 6-9 μ. crasso.

Hab. in foliis Pterocauli spicati atque virgati, Prov. St. Catharina Brasiliæ (Ule).

86. **Puccinia Uleana** P. Henn. Hedw. 1895, p. 93. — Soris ad caules 1105
incrassatos epidermide rupta cinctis, pulvinatis, oblongis confluentibusque, atris; uredosporis globosis v. ellipsoideis, brunneis, levibus, 28-33 × 15-33, episporio 6-8 μ. incrassato, levi; teleutosporis intermixtis ellipsoideis, utrinque obtusis, levibus, castaneis, 30-50 × 30-38; episporio castaneo, levi, 6-8 μ. incrassato; pedicello hyalino, 8-10 μ. longo, 4-5 μ. crasso.

Hab. in caulibus Caleae spec. in prov. Goyaz Brasiliæ (Ule).

87. **Puccinia Baccharidis** Diet. et Holw. Erythea 1893, p. 250. — 1106
Amphigena; soris uredosporiferis numerosis, sparsis, minutis, o-

chraceis, pulverulentis; uredosporis ovoideis v. ellipticis, membrana pallide fusca, echinulata, poris germinationis numerosis perforata, 34-44 × 21-31; soris teleutosporiferis minutis, pulvinatis, pallidis; teleutosporis clavatis v. oblongis, apice parum incrassatis, rotundatis, inferne attenuatis v. rotundatis, septo constrictis, pallide fuscis, levibus, 56-74 × 23-32; pedicello firmo, plerumque sporam superante, inflato; teleutosporis statim post maturitatem germinantibus.

Hab. in foliis vivis Baccharidis vimineæ et glutinosæ Pasadena in California. (Mc Clatchie); B. longipedis et glutinosæ in horto botanico, Santiago, Chile (Neger).

88. **Puccinia baccharidicola** P. Henn. Hedw. 1896, p. 242. — Maculis flavescentibus irregularibus vel rotundatis; soris sparsis vel aggregatis, pulvinatis, ochraceis subpulverulentis; uredosporis late ellipsoideis vel ovoideis, pallide brunneis, 22-28 × 19-22, dense verrucosis; teleutosporis intermixtis, subfusoideis elongatis, 60-75 × 15-22 apice papillatis, medio leniter constrictis, episporio tenui, levi, pallide brunneo, apice non incrassato; pedicello hyalino, 30 μ. longo, tenui. 1107

Hab. in foliis vivis Baccharidis spec. Rio de Janeiro Brasiliæ (Ule). — *P. Baccharidis* Diet. et Holw. affinis.

89. **Puccinia Henningsii** Diet. Hedw. 1897, p. 31. — Maculis flavis; soris uredosporiferis hypophyllis, diu tectis, deinde epidermide fissa cinctis; uredosporis obovatis, 28-38 × 21-25, episporio verrucoso achroo præditis; soris teleutosporiferis epiphyllis, minutis, gregariis, in sicco albidis; teleutosporis oblongis v. clavatis, utrinque rotundatis vel basi attenuatis, 48-63 × 22-26, episporio tenui, æquali, hyalino, levi indutis, contentu aurantiaco, pedicello mediocri, firmo suffultis, statim post maturitatem germinantibus. 1108

Hab. in foliis Baccharidis dracunculifoliæ pr. Blumenau Brasiliæ (Ule).

90. **Puccinia chilensis** Diet. et Neg. Engl. Jahrb. XXII, p. 354. — Soris maculis flavescentibus insidentibus, per totam foliorum superficiem inferiorem sparsis, punctiformibus, hemisphæricis, epidermide fissa cinctis; uredosporis ovoideis v. piriformibus, 30-40 × 23-27, episporio tenui, brunneo, breviter echinulato præditis, poris germinationis quattuor æquatorialibus instructis; teleutosporis oblongis v. ellipticis, interdum obliquis, utrinque rotundatis v. basi attenuatis, ad septum leniter constrictis, 50-72 × 25-35, membrana levi, apice vix incrassata, intense brunnea præditis, pedicello hya- 1109

lino applanato satis firmo, sporæ fere æquilongo, interdum oblique inserto suffultis.

Hab. in foliis vivis Baccharidis eupatorioidis in prov. Concepcion Chile (Neger). — Teleutosporæ uniloculares claviformes haud raræ.

91. **Puccinia Baccharidis-triplinervis** P. Henn. Hedw. 1896, p. 241. 1110
— Maculis epiphyllis, brunneis vel fuscis, rotundatis, sparsis ca. 1 mm. diametro, interdum confluentibus; soris teleutosporiferis hypophyllis, minutis, sparsis, atris; teleutosporis ovoideis vel elongatis apice incrassatis, rotundatis vel subapiculatis, medio septatis vix constrictis, 25-40 × 15-26, fusco-brunneis, pedicello hyalino usque ad 60 μ. longo, 4-5 μ. crasso.

Hab. in foliis vivis Baccharidis triplinervis pr. Blumenau Brasiliæ (Ule).

92. **Puccinia Baccharidis-cylindricæ** P. Henn. Hedw. 1896, p. 241. 1111
Maculis flavis irregularibus; soris teleutosporiferis sparsis vel aggregatis caulicolis, primo tectis dein epidermide inflata cinctis, pulvinato-hemisphæricis, cinnamomeis, subpulverulentis, usque ad 1 mm. diam.; teleutosporis oblongis apice obtuse incrassatis, flavo-brunneis, ad septum valde constrictis, 45-60 × 22-28; episporio brunneo levi, 3 μ. crasso; pedicello hyalino, flexuoso, usque ad 80 μ. longo.

Hab. in caulibus Baccharidis cylindricæ in prov. de Buenos Ayres Argentinæ (Lorentz).

93. **Puccinia Baccharidis-cassinoidis** P. Henn. Hedw. 1896, p. 241. 1112
— Maculis fuscis irregularibus; soris subgregariis vel sparsis hypophyllis, ochraceis, diutius tectis; uredosporis subglobosis ovoideis vel late ellipsoideis, subhyalinis flavescentibus vel fuscescentibus, verrucosis, 28-40 × 25-35; teleutosporis plerumque intermixtis elongato-clavatis vel subfusoideis, apice obtuso-rotundatis haud incrassatis, medio constrictis; episporio tenui, flavidulo vel brunneolo, 60-75 × 23-27; pedicello hyalino, 30-60 μ. longo, 5-7 μ. crasso.

Hab. in foliis vivis Baccharidis cassinoidis pr. Blumenau Brasiliæ (Ule).

94. **Puccinia Möllériana** P. Henn. Hedw. 1895, p. 336. — Soris sparsis, oblongis v. rotundatis, flavo-ochraceis, diutius tectis, hypophyllis; uredosporis subglobosis v. ellipsoideis, hyalino-fuscescentibus, verrucosis, 22-25 × 20-23; teleutosporis ellipsoideis v. subglobosis, medio septatis, ad septum vix constrictis, levibus, apice incrassatis, atro-fuscis, 15-28 × 12-16; pedicello brevi, hyalino-brunneo, fragili. 1113

Hab. in foliis Baccharidis spec., Serra Brassa Brasiliæ (Möller).

95. **Puccinia vernoniicola** P. Henn. Pilz. Ostafr. p. 50. — Soris teleutosporiferis hypophyllis, flavo-rufis, sparsis, maculis fuscis; sporis clavatis v. elongato-oblongis, levibus, apice rotundato-obtusis, subincrassatis, raro subapiculatis v. emarginatis, medio plus minus constrictis, 45-70 × 20-27, episporio tenui, levi; pedicello hyalino, persistente, usque ad 60 μ. longo. 1114

Hab. in foliis Vernoniæ sp. in Africa trop. (Volkens).

96. **Puccinia Lorentzii** P. Henn. Hedw. 1896, p. 239. — Soris uredosporiferis sparsis, hypophyllis, punctiformibus minutis, ochraceis; uredosporis globosis ovoideis vel ellipsoideis, flavo-brunneis, 22-28 × 21-24, episporio brunneo, 3-4 μ. crasso, dense aculeato-asperato; soris teleutosporiferis sparsis, minutis, punctiformibus, hypophyllis, atris; teleutosporis elongato-clavatis vel oblongis brunneis, apice rotundatis paullo incrassatis, medio constrictis, episporio castaneo, 4 μ. crasso, levi; pedicello hyalino usque ad 150 μ. longo, inflato, 8-11 μ. incrassato. 1115

Hab. in foliis vivis Vernoniæ Lorentzii, mollissimæ atque scorpioidis in Argentina et Brasilia pluribus locis. — A *Puccinia Vernoniæ* Cke. satis diversa.

97. **Puccinia pinguis** Diet. Hedw. 1897, p. 32. — Soris hypophyllis, minutis, sparsis, castaneis, pulveraceis; teleutosporis ellipticis, utrinque rotundatis, medio vix vel non constrictis, apice papilla hyalina instructis, castaneis, 38–55 × 25-35, episporio crasso, minute verruculoso indutis; pedicello brevi, caduco, hyalino. 1116

Hab. in foliis vivis Vernoniæ platensis, Serra Geral Brasiliæ (Ule).

98. **Puccinia horrida** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 214. — Soris uredosporiferis amphigenis, congregatis, confluentibus, cinnamomeis; uredosporis rotundatis vel ovatis, 36-42 × 30-36, membrana crassa, luteo-fusca, aculeis validis sparsis prædita; soris teleutosporiferis hypophyllis, sparsis, circ. 1 mm. diam., firmis, cinnamomeis, epidermide non tectis; teleutosporis oblongis, 71-111 × 29-36, medio paullo constrictis, utrinque rotundatis, membrana levi, luteola, apice valde incrassata, contentu aurantiaco; pedicello longo, persistenti. 1117

Hab. in foliis Eupatorii sp. in Æquatoria.

99. **Puccinia Eupatorii** Diet. Hedw. 1897, p. 32. — Maculis flavis indeterminatis vel nullis; soris uredosporiferis, minutis, castaneis, 1118

hypophyllis, gregariis vel sparsis; uredosporis late ellipticis vel globosis, 25-30 μ. diam., flavo-brunneis, breviter echinulatis, poris germinationis binis instructis; soris teleutosporiferis punctiformibus, atrofuscis; teleutosporis ellipticis, medio leniter constrictis, utrinque rotundatis, membrana castanea, levi, apice late incrassata præditis, 40-50 × 25-33, pedicello mediocri, haud firmo suffultis.

Hab. in foliis vivis Eupatorii ballotifolii atque E. macrocephali, Serra Geral Brasiliæ (Ule).

100. **Puccinia pachyspora** Diet. Hedw. 1897, p. 32. — Soris in caulibus et in foliis amphigenis mediocribus, epidermide diu tectis, deinde liberis; uredosporis ellipticis, obovatis vel subglobosis 30-35 × 27-30, flavo-brunneis, echinulatis; soris teleutosporiferis atris, erumpentibus, pulverulento-compactiusculis, usque 1,2 mm. diam., sparsis; teleutosporis ellipticis vel oblongis, medio constrictis, utrinque rotundatis, membrana apice plus minusve incrassata, levi, castanea, apice dilutiore indutis, 42-62 × 25-33; pedicello sporam subæquante hyalino, fragili. 1119

Hab. in foliis vivis Eupatorii oblongifolii, Serra Geral Brasiliæ (Ule).

101. **Puccinia Zexmeniæ** Diet. et Holw. Bot. Gaz. 1897, p. 26. — Soris sparsis, amphigenis; uredosporis ellipticis v. globosis, 20-22 × 17-20, dilute brunneis, echinulatis; teleutosporis ellipticis, utrinque rotundatis, non vel vix constrictis, 35-45 × 25-33, episporio castaneo 4-5 μ. crasso, apice non incrassato vel interdum minute cucullato-incrassato, striis angustis dense reticulatis, pedicello sporam superante, tenui, hyalino, sæpe lateraliter inserto, caduco. 1120

Hab. in foliis Zexmeniæ podocephalæ, Guadalajara Mexico (Holway).

102. **Puccinia opaca** Diet. et Holw. Bot. Gaz. 1897, p. 26. — Soris parvis, atris, sparsis, amphigenis; uredosporis ellipticis, 18-20 × 16-17, pallide fuscis, echinulatis; teleutosporis ellipticis, utrinque rotundatis, parum constrictis, 30-36 × 24-28, obscure castaneis, apice plerumque non incrassatis, membrana sulcis latis dense reticulata; pedicello hyalino, usque ad 90 μ. interdum laterali, caduco. 1121

Hab. in foliis vivis Zexmeniæ ceanothifoliæ, Guadalajara, Mexico (Holway).

103. **Puccinia inconspicua** Diet. Hedw. 1897, p. 33. — Soris hypophyllis, minutis, sparsis, castaneis; uredosporis ellipticis vel globosis, ca. 24 μ. diam., castaneis, echinulatis; teleutosporis oblongis vel clavatis, basi attenuatis vel rotundatis, apice conicis rarius rotundatis 1122

vel truncatis, ad septum leniter constrictis, 50-65 × 19-25, membrana levi, castanea, apice valde incrassata et hyalina præditis; pedicello brevi, haud firmo.

Hab. in foliis vivis Compositæ indeterminatæ, Serra Geral Brasiliæ (Ule).

104. **Puccinia circinans** Diet. Hedw. 1897, p. 30. — Soris hypophyllis, in maculis flavescentibus, minutis, pulvinatis, in circulos concentricos dispositis vel sparsis, castaneis; teleutosporis ellipticis, utrinque rotundatis vel basi attenuatis, medio ante germinationem non constrictis, 27-33 × 21-25, membrana levi, crassa (3-5 μ.), apice haud incrassata, flavo-brunnea, instructis, pedicello satis firmo, sporam æquante vel eam superante suffultis. 1123

Hab. in foliis Compositæ indeterminatæ, Prov. Minas Geraës Brasiliæ (Ule).

105. **Puccinia rotundata** Diet. Hedw. 1897, p. 32. — Soris maculis flavis insidentibus, amphigenis, irregularibus circularibusve, sæpe annulum circum sorum centralem formantibus, cinnamomeis, margine epidermide cinctis; teleutosporis ellipticis, rarius irregularibus, utrinque rotundatis, medio levissime constrictis, episporio verruculoso reticulato, flavo-brunneo, crasso, apice non vel modice incrassato indutis, 30-40 × 20-25; pedicello mediocri, hyalino, fragili. 1124

Hab. in foliis vivis Compositæ indeterminatæ, Serra Geral Brasiliæ (Ule) — *P. rugosæ* Speg. affinis.

106. **Puccinia velata** Diet. Hedw. 1897, p. 31. — Soris maculis flavescentibus insidentibus, hypophyllis solitariis vel circulariter circa sorum centralem dispositis, pulverulentis, castaneis, primo pubescentia folii velatis; teleutosporis ellipticis, utrinque rotundatis, medio vix constrictis, apice paullo vel non incrassatis, subtiliter punctatis, 26-35 × 19-23, pedicello fragili suffultis. 1125

Hab. in foliis vivis Compositæ ignotæ, Ouro Preto Brasiliæ (Ule).

107. **Puccinia Gamocarphæ** (Klotzsch) P. Henn. Hedw. 1897, p. 214. (*Uredo Gamocarphæ* Kl. in Herb. Berol.). — Soris amphigenis, pustulatis, epidermide rupta cinctis, castaneis, 0,5 mm. diametro; uredosporis subglobosis vel late ellipsoideis, brunneis, 29-32 × 20-26; episporio minute aculeato, usque ad 3 μ. crasso, castaneo; teleutosporis ellipsoideis vel ovoideis, medio septatis, paulo constrictis, utrinque rotundatis, 30-35 × 23-28, episporio sublevi vel punctulato, castaneo. 1126

Hab. in foliis Gamocarphae Poeppigii in Peruvia (Meyen).

108. **Puccinia longipes** Lagh. Ured. herb. Fries. 1895, p. 64. — Soris teleutosporiferis maximis, elongatis, pulvinatis, epidermide non tectis, firmis, castaneis; teleutosporis ellipticis, elongatis v. ovatis, medio non constrictis, utrinque parum attenuatis v. rotundatis, 35-50 × 18-25, episporio flavo-brunneo, apice papilliformiter incrassato et dilutius colorato, subtiliter verruculoso; pedicello gracili, achroo, longissimo, non deciduo. 1127

Hab. in culmo vel petiolo? Ambrosiae spec. in Amer. bor. (Schweinitz).

109. **Puccinia Boopidis** Neger, Anal. de la Univ. Santiago Chile 1896, XCIII, p. 780. — Soris uredo- et teleutosporiferis minutis v. mediocribus, laxe gregariis, læte cinnamomeo-fuscis; uredosporis globosis, dilute fuscis, 25 μ. diam., echinulatis; teleutosporis obovoideis v. ellipticis, ad septum non constrictis, castaneo-fuscis, 35-40 × 25-30; pedicello hyalino, valde variabili, longissimo v. brevissimo, lato. Sporis bilocularibus nonnumquam commixtæ simplices sunt. 1128

Hab. in Boopide leucanthema in pratis subandinis fundi Santa Julia pr. Collipulli, Chile.

110. **Puccinia vacua** Diet. et Holw. Bot. Gaz. 1897, p. 30. — Soris hypophyllis, interdum epiphyllis, sparsis; soris uredosporiferis pallide flavis; uredosporis late ellipticis v. ovatis, usque globosis, 22-29 × 20-25, membrana subhyalina, echinulata; soris teleutosporiferis brunneis; teleutosporis ellipticis, utrinque rotundatis, raro versus pedicellum angustatis, leniter constrictis, dense verrucosis, fuscis, apice incrassatis, 35–60 × 23-28; pedicello usque ad 80 μ. longo, hyalino, caduco. 1129

Hab. in foliis vivis Lobeliæ spec. pr. Cuernavaca in Mexico. (Holway). — Differt a *Puccinia Lobeliæ* Ger. membrana crassiore et sporis multo majoribus.

111. **Puccinia Brunoniæ** Mc Alp. Agr. Gaz. Sydney. VI, 1896, p. 2, fig. 4–7. — Soris teleutosporiferis amphigenis, plerumque epiphyllis, pustulas obscure aurantiacas, rotundatas formantibus, gregariis confluentibusque, interdum solitariis, mox erumpentibus, grisescentibus; teleutosporis clavatis, aureo-brunneis v. castaneis, interdum hyalinis, apice incrassatis, medio constrictis, 34–50 × 17-19½, loculo superiore rotundato v. leviter applanato, loculo inferiore deorsum attenuato plerumque longiore, luteo v. aureo-brunneo; pedicello persistente, flavo, interdum hyalino, usque ad 53 μ. longo. 1130

Hab. in foliis Brunoniæ australis, Victoria Amer. bor.

112. **Puccinia lateritia** Berk. et Curt. Exot. Fung. Schwein Herb. p. 281; Lagh. Ured. herb. Fries, p. 63; ? *P. Spermacoces* Berk. et Curt. N. Amer. Fg. n. 548. — Soris hypophyllis, sparsis v. in maculis pallidis congregatis, pulvinatis, parvis, firmis, rubiginosis; teleutosporis ovoideis, medio non constrictis, membrana crassa, fuscescenti, levi, versus apicem sporæ incrassata, magnitudine biformibus, majoribus obscurioribus, 28-36 × 20-22, minoribus pallidioribus, 20-26 × 14-16; pedicello persistenti, tenui, pallide fuscescenti, spora longiore. 1131

Hab. in foliis Spermacoces (?), Cruseæ, Diodiæ, Bouvardiæ Amer. merid. et austr.

113. **Puccinia Coprosmatis** Morrison in Mc Alp. Arrang. Austral. Fungi 1893, p. 200. — Soris hypophyllis, rarius epiphyllis, prominentibus, saturate brunneis, confluentibus; teleutosporis compactis, brunneis. 1132

Hab. in foliis Coprosmatis Billardieri, Victoria Australiæ. — Var. **Operculariæ** Morrison l. c. soris hypophyllis, folium deformantibus et concavitates epiphyllas generantibus, rufo-brunneis; teleutosporis pallide flavido-brunneis. — In foliis petiolisque foliorum juvenilium Operculariæ variæ, Victoria Australiæ.

114. **Puccinia Pentadis** P. Henn. Pilz. Ostafr. p. 50. — Soris uredosporiferis epiphyllis, sparsis, minute punctiformibus, ochraceis; uredosporis ovoideis v. ellipsoideis, flavis, verrucosis, 26-32 × 20-28; soris teleutosporiferis epiphyllis, sparsis v. subgregariis, cinnamomeis; teleutosporis ellipsoideis, rotundato-obtusis, medio septatis, vix constrictis, aculeato-verrucosis, castaneis, 32-40 × 28-32; episporio, 4 ½-5 ½ μ crasso, verrucoso; pedicello persistente, hyalino, 30-50 × 8-10. 1133

Hab. in foliis Pentadis mombassanæ in Africa trop. (Volkens).

115. **Puccinia Niederleinii** P. Henn. Hedw. 1896, p. 238. — Soris in maculis pallidis rotundatis, hypophyllis, orbiculariter dispositis, punctiformibus, hemisphærico-pulvinatis cinnamomeis; teleutosporis ellipsoideis, ovoideis vel turbinatis, flavo-brunneis; medio 1-septatis vix constrictisque apice plerumque late applanatis, incrassatis, 16-30 × 14-22, episporio levi, 3-4 μ crasso; pedicello hyalino vel fuscidulo, flexuoso usque ad 60 μ elongato, 4-5 μ crasso. 1134

Hab. in foliis vivis Manettiæ lelanthifloræ in Argentina (Niederlein), et Manettiæ spec. in Paraguay (Lindmann).

116. **Puccinia longirostris** Kom. in Fg. Rossici n. 57 (Diagnosim non vidimus). 1135

Hab. in foliis vivis Loniceræ hispidæ in Turkestania.

117. **Puccinia Gardoquiæ** Diet. et Neg. Engl. Jahrb. XXII, p. 353. 1136
— Soris uredosporiferis hypophyllis, sparsis, minutis, rufis; uredosporiferis ovoideis v. globosis, dilute brunneis, echinulatis, 27-35 × 25-30; teleutosporis ellipsoideis, utrinque rotundatis, medio leniter constrictis, 32-35 × 28-30, membrana obscure castanea echinulata præditis, pedicello sporam fere æquante suffultis.

Hab. in foliis Gardoquiæ multifloræ pr. Concepcion Chile (Néger).

118. **Puccinia salviicola** Diet. et Holw. Bot. Gaz. 1897, p. 33. — 1137
Soris amphigenis, sparsis, mediocribus, primo epidermide tectis, pulverulentis; soris uredosporiferis cinnamomeis; uredosporis globosis, ovatis v. ellipticis, 22-37 × 20-30, dilute fuscis, echinulatis, poris germinationis 2; teleutosporis in soros atros congestis, ellipticis, utrinque rotundatis v. apice breviter conicis, vix v. haud constrictis, 35-44 × 25-33, apice late papillato-incrassatis, minutissime verrucosis, castaneis; pedicello sporam superante, hyalino, basim versus angustiore.

Hab. in foliis vivis Salviæ glechomæfoliæ pr. Mexico (Holway).

119. **Puccinia conspersa** Diet. Hedw. 1897, p. 30. — Pseudoperidiis ma- 1138
culis purpurascentibus infra insidentibus, minutis, solitariis v. nonnullis congregatis, margine irregulariter lacerato; æcidiosporis ovoideis v. subglobosis, 20-27 × 18-23, verruculosis; soris teleutosporiferis hypophyllis, punctiformibus, pulvinatis, castaneis, numerosis; teleutosporis ellipticis, utrinque rotundatis, ad septum leniter constrictis, castaneis, apice modice incrassatis et pallidioribus, 25-33 × 18-23, statim post maturitatem germinantibus; pedicello fragili.

Hab. in foliis vivis speciei cujusdam Salviæ (v. Hyptidis) Serra Geral Brasiliæ (Ule).

120. **Puccinia mellifera** Diet. et Holw. Erythea 1893, p. 251. — 1139
Maculis flavis v. fuscis; æcidiis hypophyllis solitariis v. conglobatis, cinnamomeis, pulverulentis; pseudoperidiis elongatis, valde laciniatis, fugacibus; cellulis pseudoperidii cylindricis, asperulis v. sublevibus, facile secedentibus; æcidiosporis ovoideis v. subglobosis, subtiliter verrucosis, fuscidulis, poris germinationis numerosis, 29-40 × 24-29; soris teleutosporiferis plerumque epiphyllis, globosis, ca. 1 mm. diam., nudis, atro-fuscis; teleutosporis ellipticis, utrinque rocili latis medio leniter constrictis, parum incrassatis, levibus, castandis, 40-50 × 28-35; pedicello mediocri, usque ad 80.

Hab. in foliis vivis Salviæ melliferæ, Pasadena in California (Mc Clatchie).

121. **Puccinia albida** Diet. et Neg. Engl. Jahrb. 1897, p. 160. — 1140
Soris hypophyllis, circularibus v. in annulos continuos congestis, firmis, pulvinatis, albido-ochraceis; teleutosporis oblongis v. clavatis, apice rotundatis, basi attenuatis, ad septum leniter v. non constrictis, 30-40 × 10-14, episporio incolorato, levi, apice modice (ca. 3 μ.) incrassato indutis, pedicello firmo, mediocri, usque ad 35 μ. longo suffultis.

Hab. in foliis vivis Stachydis grandidentatæ in valle fluvii Rio Pichi-Malleco, Chile. (Neger). — *Pucciniæ pallidissimæ* Speg. (in Stachyde arvensi) valde affinis.

122. **Puccinia Thunbergiæ-alatæ** P. Henn. Pilz. Ostafr. p. 50. — 1141
Maculis fuscis; soris amphigenis, pulvinatis, castaneis; uredosporis subglobosis, ellipticis v. ovoideis, fusco-brunneis, dense verrucosis, 20-30 × 18-24, episporio aculeato, cinnamomeo, 3-4 μ. crasso; teleutosporis clavatis v. oblongis, apice obtusis non incrassatis, septo constrictis, flavo-fuscescentibus, 40-59 × 18-20 episporio levi; pedicello hyalino, circiter 20 μ. longo, 7-8 μ. crasso.

Hab. in foliis vivis Thunbergiæ alatæ in Africa trop. (Volkens). — A *P. Thunbergiæ* Cke. differt uredosporis magnis, dense verrucosis et teleutosporis apice non incrassatis.

123. **Puccinia Antirrhini** Diet. et Holw. Hedw. 1897, p. 298. — Soris 1142
uredosporiferis mediocribus, castaneis; uredosporis ellipticis v. globosis, 23-30 × 21-25, castaneis, brevissime echinulatis, poris germinationis 2, rarius 3 instructis; soris teleutosporiferis pulvinatis, atrofuscis, in foliorum maculis pallescentibus v. arescentibus insidentibus, amphigenis, præsertim hypophyllis, mediocribus v. minutis, irregulariter congregatis, in caulibus majoribus, epidermide fissa cinctis, confluentibus; teleutosporis oblongis v. irregularibus, apice conicis, rotundatis v. truncatis, basi attenuatis, rarius rotundatis, ad septum modice constrictis, episporio obscure castaneo v. dilute fusco, apice incrassato, levi indutis, 36-50 × 17-26, pedicello longo suffultis.

Hab. in foliis caulibusque Antirrhini majoris, Berkley (Blasdale) Amer. bor.

124. **Puccinia nemoralis** Juel Oefversigt af K. Vet.-Akad. Förhandl. 1143
1894, n. 9, p. 506. cum icone, *Æcidium Melampyri* Kze. et Schm Exsicc. n. 165, Wint. Die Pilze p. 262; Sacc. Syll. VII, p. 813 — Pseudoperidiis hypophyllis, albidis, in maculis irregularibus,

purpureo-rufis, sine ordine v. orbiculariter in greges rotundatos vel diformes dispositis, cupulatis, margine revoluto, pluries inciso; æcidiosporis polygoniis, siccis flavis, subtilissime punctulatis, 15-18 μ. diam.; uredosporis in soros lanceolatos v. lineares congestis, aculeatis; luteo-brunneis, 3 poris germinationis; teleutosporis plerumque late ellipsoideis, loculis semiglobosis. *Pucc. Moliniæ* valde affinibus, sed plerumque brevioribus et longius pedicellatis.

Hab. æcidia in foliis Melampyri pratensis, cristati etc. in Europa, uredo- et teleutosporæ in foliis Moliniæ cæruleæ in Suecia.

125. **Puccinia Wulfeniæ** Diet. et Holw. Erythea 1895, p. 79. — Soris 1144
teleutosporiferis amphigenis, vulgo epiphyllis, solitariis vel in greges concentricos circulares congestis, maculis nigrescentibus incrassatiusculis insidentibus, pulverulentis, cinnamomeis; teleutosporis oblongis, utrinque rotundatis, ad septum valde constrictis, dilute brunneis, levibus, apice papilla hyalina præditis, 30-40 × 15-19, pedicello brevi deciduo fultis.

Hab. in foliis Wulfeniæ cordatæ in California (Blasdale).

126. **Puccinia Paranahybæ** P. Henn. Hedw. 1895, p. 320. — Maculis 1145
epiphyllis, flavis v. fuscis; soris hypophyllis plerumque rotundato-dispositis confluentibusque, atro-brunneis v. castaneis; sporis clavatis v. ellipsoideis oblongisque, apice plerumque obtuso-rotundatis, haud incrassatis, brunneis v. fuscis, medio paulo constrictis, 27-34 × 14-17; pedicello brevi, hyalino.

Hab. in foliis Ruelliæ spec. Goyaz Brasiliæ (Ule) et R. longifoliæ pr. Blumenau Brasiliæ, nec non in Argentina.

127. **Puccinia Ruelliæ** (Berk. et Br.) Lagh. Ured. herb. Fries. 1895, 1146
p. 71; *Uredo Ruellicæ* Berk. et Br. Fg. Ceyl. n. 830; *Pucc. lateripes* Burr. Fg. paras. III, p. 189 ex parte; *Diorchidium lateripes* Magn. Gatt. Diorchid. p. 191; Dietel, Quellungsersch. p. 63. — Uredosporis ovatis v. ovoideo-globosis, membrana aculeata, poris germinationis binis oppositis æquatorialibus.

Hab. in foliis Ruelliæ prostratæ, in Ceylon.

128. **Puccinia mexicana** Diet. et Holw. Bot. Gaz. 1897, p. 33. — Ma- 1147
culis rubro-purpureis, margine lato, flavo cinctis, circularibus, 3-5 mm. latis; soris pulvinatis, minutis, dense conglobatis, brunneis; teleutosporis longe ellipticis usque fusiformibus, apice plerumque conico-acutis, raro rotundatis, loculo inferiore pedicellum versus rotundato v. angustato, modice constrictis, 38-50 × 16-23, mem-

brana flavo-brunnea, levi, apice incrassata; pedicello sporam superante, firmo, hyalino.

Hab. in foliis vivis Pentastemonis campanulati, Esclava prope Mexico (Holway).

129. **Puccinia Chelonis** Diet. et Holw. Hedw. 1897, p. 297. — Maculis flavis v. brunneis, circularibus; soris teleutosporiferis hypophyllis (epiphyllis solitariis), primo epidermide plumbea vesiculosa velatis, deinde nudis, pulveraceis, circulariter v. secundum nervos irregulariter dispositis, usque 5 mm. latis, soris minoribus concentrice dispositis sæpe circumdatis, obscure castaneis; teleutosporis ellipticis, utrinque rotundatis, medio leniter constrictis, breviter pedicellatis, intense flavo-brunneis, minute verrucosis, 30-40 × 18-25. 1148

Hab. in foliis Chelonis nemorosæ, Washington Amer. bor. (Suksdorf).

130. **Puccinia apus** Diet. et Neg. Engl. Jahrb. 1897, p. 159. — Soris epiphyllis, minutis v. mediocribus, sparsis v. in acervulos irregulares congestis, flavis, mox apertis, in pagina inferiore maculas circulares albidas, margine obscuro circumdatas, generantibus; teleutosporis fusiformibus, apice acuminatis, basi attenuatis, ad septum non v. vix constrictis, 36-45 × 12-17, episporio tenui, levi, pallido indutis, statim post maturitatem germinantibus; pedicello valde caduco. 1149

Hab. in foliis vivis Ourisiæ racemosæ, ad ripam fluminis Rio Pichi-Malleco in Chile (Neger).

131. **Puccinia Ourisiæ** Diet. et Neg. Engl. Jahrb. 1897, p. 159. — Soris amphigenis præsertim epiphyllis, in acervulos circulares sæpe concentricos congestis v. solitariis, pulveraceis, castaneis; teleutosporis forma varia et sæpe irregularibus, oblongis vel ellipticis, utrinque rotundatis, medio leniter constrictis, 28-40 × 18-24, brunneis, apice modice vel vix incrassatis vel papilla hyalina instructis, verrucosis; pedicello sporam subæquante, valde caduco. 1150

Hab. in foliis vivis Ourisiæ coccineæ, ad ripam fluminis Rio Pichi-Malleco in Chile (Neger).

132. **Puccinia Stenandrii** Diet. et Neg. Engl. Jahrb. XXII, p. 352. Æcidiis epiphyllis, plerumque in circulos parvos dispositis, rarius maculis irregularibus insidentibus; pseudoperidiis albis, margine irregulariter lacerato vel denticulato; cellulis pseudoperidii forma varia, plerumque oblongis, 40-50 × 16-30, verrucosis; æcidiosporis ellipsoideis, subglobosis v. oblongis, 22-32 × 15-23, contentu flavo, 1151

membrana hyalina verruculosa præditis; soris uredosporiferis præsertim epiphyllis, sparsis vel in acervulos mediocres circulares consociatis, epidermide vesiculosa diu tectis, denique liberis, castaneis; uredosporis subglobosis v. ovoideis, 25-30 × 22-25, episporio castaneo, echinulato præditis; soris teleutosporiferis amphigenis, congregatis v. sparsis, mediocribus, epidermide cinctis, atrofuscis; teleutosporis ellipticis v. subglobosis, utrinque rotundatis, medio vix vel non constrictis, 30-42 × 27-32, membrana obscure castanea, apice paullulum incrassata papillosa indutis, pedicello sporam æquante sæpe e latere inserto, hyalino suffultis.

Hab. in foliis vivis Stenandrii dulcis pr. Concepcion, Chile (Neger).

133. **Puccinia Elytrariæ** P. Henn. Hedw. 1895, p. 320. — Soris hypophyllis in maculis pallidis suborbiculariter dispositis, dense gregariis, atro-cinnamomeis, primo epidermide rupta, pallida cinctis, dein liberis, subpulverulentis; teleutosporis plerumque unicellularibus, ovoideis, clavatis, ellipsoideis, subglobosis v. medio 1-septatis, paulo constrictis, episporio ca. 3 μ. crasso, apice incrassato, rotundato, 15-28 × 13-18, pedicello hyalino-fuscescente vel flavobrunneo, usque ad 45 μ. longo, subclavato, persistente, 3-4 μ. cr. 1152

Hab. in foliis viyis Elytrariæ crenatæ, in Brasilia (Glaziou) et E. tridentatae in Mexico (Holway).

134. **Puccinia Blechi** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 214. — Maculis luteolis; soris congregatis, parvis, non confluentibus, castaneis, pulveraceis; uredosporis rotundatis, ellipticis v. ovoideis, 21-33 × 18-27, membrana fusca, aculeolata, poris germinationis binis, oppositis; teleutosporis forma et magnitudine variis, 30-51 × 18-30, mediis non v. paullo constrictis, apice rotundatis, basi rotundatis v. rarius paullo attenuatis, membrana luteola, apice non incrassata, verruculoso-rugosis; pedicello varie disposito, hyalino, fragili. 1153

Hab. in foliis Blechi sp., in Æquatoria.

135. **Puccinia Tetramerii** Seymour, Bot. Gaz. XXII, 1896, p. 423, Pringle's Mexican. Fungi n. 9. — Maculis nullis; soris amphigenis, usque ad 5 mm. diam., obscuris; sporis ellipticis, verrucis obtusis dense tectis, obscuris, 11-15 ½ × 33-42; pedicello circiter 78 μ. longo, colore sporarum v. hyalino, basi aspero. 1154

Hab. in foliis Tetramerii aurei, Oaxaca, Mexico (Pringle).

136. **Puccinia Amphilophii** Diet. et Holw. Bot. Gaz. 1897, p. 30. — Soris uredosporiferis hypophyllis, rarius epiphyllis, minutis v. me- 1155

diocribus, brunneis; uredosporis ovatis v. late ellipticis, 23-27 × 20-24, longe aculeatis, luteo-brunneis; soris teleutosporiferis hypophyllis, minutis, nigris, pulverulentis; teleutosporis late ellipticis, utrinque rotundatis, siccitate apice basique depressis modice constrictis, 33-40 × 26-30, apice non incrassatis, castaneis, breviter aculeatis; pedicello sporam æquante, hyalino, basi plerumque appendiculis munito, caduco.

Hab. in foliis vivis Amphilophii spec., Cuernavaca Mexico (Holway).

137. **Puccinia cordobensis** P. Henn. Hedw. 1897, p. 214. — Soris 1156
ramicolis, effusis, primo epidermide tectis, dein irregulariter erumpentibus, epidermide rupta cinctis, castaneis, usque ad 7 cm. longis, ramos circumdantibus canceriformibus deformantibusque; uredosporis ellipsoideis, subglobosis vel ovoideis, flavis, dense aculeato-asperatis, 17-24 × 16-22; teleutosporis late ellipsoideis vel subrectangularibus, utrinque applanatis, medio septatis constrictis, læte brunneis, 28-36 × 22-25. episporio 2 μ. crasso, verruculoso, castaneo; pedicello hyalino, interdum flexuoso, persistente, 40-65 × 6-9.

Hab. ad ramos Pithecoctenii cynanchoidis pr. Cordoba Argentinæ (Hieronymus).

138. **Puccinia elegans** Schroet. Hedw. 1896, p. 238; *P. transformans* 1157
Ell. et Ev. Erythea 1897, p. 6. — Soris ramos, caules, folia tegentibus, deformantibus destruentibusque, raro singularibus, plerumque confluentibus, epidermide pallida rupta cinctis, cinnamomeo-ochraceis, pulverulentis; teleutosporis late ellipsoideis vel oblongis, brunneis, apice rotundato-obtusis, subincrassatis, interdum gibbosis medio 1-septatis, paulo vel haud constrictis, 30-36 × 20-24; episporio 3-4 ½ μ. crasso pallide castaneo, verrucoso; pedicello brevi, hyalino, fragili usque ad 13 μ. longo, 4 ½-5 ½ μ. crasso.

Hab. in caulibus ramulisque Tecomæ stantis, in California et in Argentina (Hieronymus, Lorentz). — A *P. ornata* Harkn. ex California diversissima.

139. **Puccinia cretica** Holw. Erythea 1897, p. 31. — Maculis nullis; 1158
soris pulveraceis, amphigenis, sparsis, cinnamomeis, epidermide rupta cinctis; teleutosporis levibus, ellipticis, leviter constrictis, cellulis rotundatis subæqualibus, interdum irregularibus angulosisque, apice non incrassatis, episporio tenui donatis, 28-40 × 16-24, pedicello hyalino sporam æquante v. subæquante, fragili ac plerumque abrupto, interdum laterali suffultis.

Hab. in foliis Cressæ creticæ, in California.

140. **Puccinia Nephrophylli** P. Henn. Pilz. Ostafr. p. 50. — Soris 1159
hypophyllis, dense gregariis, confluentibus, raro solitariis, castaneis, subpulverulentis, 0,1-0,2 mm.; teleutosporis oblongis, apice pallidiore papillatis incrassatis, medio 1-septatis, constrictis, læte brunneis, 24-30 × 15-20; episporio levi, brunneo; stipite persistente, hyalino, 12-22 × 4-5.

Hab. in foliis vivis Nephrophylli spec., in Africa trop. (Volkens.).

141. **Puccinia tumidipes** Peck — Syll. VII, p. 654 — var. **argentina** 1160
P. Henn. Hedw. 1896, p. 235. — Soris uredosporiferis amphigenis, pulvinatis ochraceis sparsis; uredosporis oblongis ovoideis vel clavatis, fusco-brunneis vel ochraceis apice paulo incrassato, dense aculeatis, 26-35 × 16-22; teleutosporis oblongis vel late ellipsoideis, utrinque rotundatis, apice paulo incrassatis medio paulo constrictis, læte castaneis, episporio levi 4–5 μ. crasso, castaneo, 35–50 × 26-32, pedicello hyalino, basi clavato usque ad 60 μ. longo, interdum 13 μ. inflato.

Hab. in foliis Lycii argentei pr. Cordoba Argentinæ (Hieronymus).

142. **Puccinia Negeriana** Diet. Engl. Jahrb. XXII, p. 351. — Soris 1161
hypophyllis, rarius epiphyllis, parvis, dense gregariis acervos plerumque rotundatos rarius oblongos variæ magnitudinis (1–8 mm.) constituentibus, læte cinnamomeis, pulvinatis, nudis; teleutosporis pro maxima parte unilocularibus, ovoideis v. globosis, 21–32 × 17-25, raro usque 37 × 35, singulis bilocularibus ellipticis v. globosis, medio non vel vix constrictis, 28-40 × 25-31, membrana levi, dilute et sordide fusca, apice valde (usque 13 μ.) incrassata instructis, maturatis statim germinantibus, pedicello firmo, hyalino, spora duplo vel quadruplo longiore.

Hab. in foliis vivis Solani furcati duobus locis in Chile (Neger).

143. **Puccinia Solani-tristis** P. Henn. Hedw. 1896, p. 236. — Ma- 1162
culis flavis vel aurantiacis, rotundatis, sparsis; soris hypophyllis, aggregatis, orbiculariter dispositis, atris; uredosporis subglobosis, ellipsoideis vel ovoideis, pallide flavis vel fuscescentibus, levibus, 10-14 × 9-13; teleutosporis oblongis vel subclavatis, pallide brunneis vel fuscescentibus, 20-34 × 11-13, apice obtusis vix incrassatis, medio 1-septatis constrictisque, episporio levi, brunneolo; pedicello hyalino, brevi.

Hab. in foliis vivis Solani tristis, Serra do Mar in Brasilia (Ule).

144. **Puccinia Hieronymi** P. Henn. Hedw. 1896, p. 234. — Maculis 1163
pallidis amphigenis, rotundatis, subulatis (?); soris sparsis, pulvinato-tuberculatis sæpe confluentibus, cinnamomeis; sporis subglobosis, ovoideis, ellipsoideis vel clavatis, plerumque unicellularibus vel medio septatis haud constrictis, apice vix incrassatis, rotundato-obtusis v. subapiculatis, 22-33 × 15-30, læte brunneis; episporio levi 3-5 μ. crasso; pedicello hyalino vel subflavescenti usque ad 60 μ. longo, 5-7 μ. crasso, interdum inflato.

Hab. in foliis Solani nodiflori, Sierra chica de Cordoba Argentinæ (Hieronymus).

145. **Puccinia claviformis** Lagh. Ured. herb. Fries. 1895, p. 53. — 1164
Soris hypophyllis in maculis (5 cm. diam.) circularibus dense congregatis, parvis, confluentibus, firmis; teleutosporis claviformibus, apice rotundatis, basi attenuatis, medio paullo constrictis, 34-40 × 20-26; episporio fuscescenti, levi, ad apicem plerumque incrassato; pedicello persistenti, firmo, subbrevi.

Hab. in foliis Solani in Surinam Amer. merid. (Schweinitz sub *Æcidio solanito*).

146. **Puccinia Solani** Schw. Journ. Acad. Nat. Scienc. 1853, p. 281; 1165
Lagerheim, Ured. Herb. Fl. Fries p. 73, Syll. XI, p. 204 nomen (nec Cke.) — Soris punctiformibus, pulvinuliformibus, firmis, in tota superficie inferiori folii sparsis, rarius confluentibus, epidermide non tectis, castaneis; teleutosporis ovoideis, medio non constrictis, episporio pallide fusco, levi, crasso, æquabili crassitudine vel versus apicem paullo incrassato, 28-34 × 20-26; pedicello persistenti, longo, tenui, superne pallide fuscescente.

Hab. in folii Solani spec. in Surinam et Æquatoria Americæ merid.

147. **Puccinia araucana** Diet. et Neg. Engl. Jahrb. 1897, p. 159. — 1166
Æcidio- et teleutosporis ramulos foliaque deformata copiosissime obtegentibus; pseudoperidiis brevibus, ca. $^1/_5$ mm. altis, 0,15-0,3 mm. latis, albis, margine denticulato præditis; æcidiosporis oblongis v. ellipsoideis, 21-30 × 15-20, episporio tenui, minute verruculoso indutis, aurantiacis; soris teleutosporiferis atro-fuscis, minutis, pulvinatis dense gregariis; teleutosporis ellipticis v. oblongis, 32-45 × 20-28, utrinque rotundatis, ad septum leniter constrictis, apice paullo incrassatis, brunneis, levibus, pedicello longissimo (usque ad 140 μ.), tenui, supra brunneolo suffultis.

Hab. in foliis ramisque vivis Solani cyrtopodii, in silvis subandinis flumine Biobio perfluxis in Chile (Neger).

148. **Puccinia Philibertiæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 60. — Amphigena, plerumque hypophylla; soris hemisphæricis, obscure castaneis, $^1/_2$–$^3/_4$ mm. diam., superficialibus, plerumque circinantibus; teleutosporis ellipticis v. obovatis, 20-30 × 15-20, vix constrictis, apice rotundatis obtusisque, loculo inferiore subpallidiore et sæpe basim versus angustato, episporio levi, apice vix incrassato, intus granulosis; pedicello gracili, subhyalino, 55-65 μ. longo; mesosporis numerosissimis, plerumque minoribus. 1167

Hab. in foliis et folliculis Philibertiæ viridifloræ?, Las Cruces, New Mexico (Wooton).

149. **Puccinia Ditassæ** P. Henn. Hedw. 1896, pag. 236. — Maculis pallidis vel fuscescentibus; soris sparsis singularibus vel aggregatis, pulvinatis, applanatis, brunneo-atris, duris, compactis ca. 1 mm. diametro; teleutosporis ovoideis, oblongis, apice rotundato-obtusis vel applanatis, haud incrassatis, 20-30 × 15-20, medio constrictis, flavo-brunneis, episporio levi pallide cinnamomeo 3 μ. crasso, pedicello subhyalino vel brunneolo usque ad 45 μ. longo. 1168

Hab. in foliis vivis Ditassæ spec. in prov. St. Catharina Brasiliæ (Ule) et D. bonariensis pr. Cordoba Argentinæ (Lorentz).

150. **Puccinia Hemipogonis** P. Henn. Hedw. 1895, p. 92. — Soris in apicibus ramorum cucurbitariiformiter dispositis, pulvinatis, confluentibus, atris, duris; teleutosporis ellipsoideis v. ovoideis, obtusis, brunneis, medio septatis, ad septa haud constrictis, 22-28 × 18-25; episporio castaneo, 4-5 $^1/_2$ μ., levi; pedicello hyalino usque ad 15 μ. longo. 4–5 μ. crasso. 1169

Hab. in apicibus ramorum Hemipogonis setacei, in prov. Goyaz Brasiliæ (Ule).

151. **Puccinia Metastelmatis** P. Henn. Hedw. 1896, p. 236. — Maculis nigricantibus subrotundatis $^1/_2$-1 cm. diametro; soris minutis, punctiformibus, atris, dense gregariis orbiculariter dispositis, interdum confluentibus; teleutosporis clavatis, oblongis vel turbinatis, apice obtusis rotundatis vel applanatis, vix vel paullo incrassatis, pallide flavis vel fuscidulis, 23-30 × 14–18, medio vix vel haud constrictis; episporio levi, fuscidulo; pedicello hyalino vel subfusco usque ad 30 μ. longo, 3-4 μ. crasso. 1170

Hab. in foliis vivis Metastelmatis odorati, in prov. St. Catharina Brasiliæ (Ule).

152. **Puccinia Rouliniæ** P. Henn. Hedw. 1896, p. 238. — Soris hypophyllis sparsis vel confluentibus, rotundatis, pulvinatis, applanatis, cinnamomeis, ca. $^1/_3$-$^1/_2$ mm. diametro; teleutosporis clavatis, oblongis vel subturbinatis, apice obtusis vix incrassatis, pallide flavis, paulo vel haud constrictis, 25-33 × 13-15; episporio levi subflavo; pedicello 15-20 × 3, subflavescenti, interdum subclavato. 1171

Hab. in foliis vivis Rouliniæ convolvulaceæ, in prov. de Salta Argentinæ (Hieronymus, Lorentz).

153. **Puccinia Schlechteri** P. Henn. Hedw. 1895, p. 326. — Soris amphigenis, plerumque hypophyllis, laminam omnino tegentibus, applanato-pulvinatis, umbrinis, sæpe confluentibus; uredosporis ovoideis v. ellipsoideis, flavis, levibus, 15–18 × 9-10; teleutosporis intermixtis clavatis, elongatis, medio septatis, constrictis, levibus, apice obtuso-incrassatis v. subpapillatis, flavo-fuscidulis, 28-45 × 14–18; pedicello elongato, subhyalino, usque ad 45 μ. longo, inflato, usque ad 14 μ. crasso. 1172

Hab. in foliis Gomphocarpi Schinziani in Transvaalia (Schlechter).

154. **Puccinia Acocantheræ** P. Henn. Pilz. Ostafr. p. 50. — Maculis pallidis, rotundatis, amphigenis, zona rubro-fusca circumdatis; soris hypophyllis, pulvinatis, sæpe aggregatis confluentibusque, firmis, cucurbitariiformibus, 3-6 mm. diam., rufofuscis; teleutosporis late ellipsoideis, ovoideis v. subclavatis, apice rotundato-obtusis, rarissime oblique subapiculatis, levibus, brunneis v. brunneo-fuscis, medio 1-septatis, vix constrictis, 28-38 × 20-28 episporio 4–5 μ. crasso; pedicello hyalino, persistente, usque ad 75 × 4-6. 1173

Hab. in foliis Acocantheræ Schimperi in Africa trop. (Holst). — *P. Lindavianæ* P. Henn. affinis.

155. **Puccinia Apocyni** Diet. et Holw. Bot. Gaz. 1897, p. 33. — Soris epiphyllis, dilute fuscis, dense orbiculariter conglobatis, in maculis flavis circularibus, 2-4 mm. diam.; teleutosporis oblongis, apice breviter conicis v. rotundatis, distincte constrictis, loculo inferiore angustato v. rotundato, 32-50 × 16-23, pallide fuscis, levibus, apice pallidioribus, valde incrassatis; pedicello firmo, sporam æquante. 1174

Hab. in foliis vivis Apocyni androsæmifolii pr. Mexico (Holway)

156. **Puccinia giliicola** P. Henn. in Sydow, Ured. n. 1212; Hedw. 1898, p. 270. — Soris minutis, obscuris; uredosporis globosis, atrobrunneis, punctatis. 16–18 μ. diam; teleutosporis oblongis v. ovoi- 1175

deis, 25-40 × 18-24, atro-brunneis, apice vulgo obtusis incrassatisque, pedicello hyalino gracili usque 60 μ. longo suffultis.

Hab. in foliis Giliæ californicæ, Snow Mount Californiæ. — Ad *P. Giliæ* Ell. et Harkn. valde accedit, sed ob uredosporas atro-brunneas, punctatas et teleutosporas breviores tamen videtur satis diversa.

157. **Puccinia Dioteliana** Syd. Hedw. 1898, p. 215. — Pseudoperidiis 1176
in acervulos parvos per totam inferiorem superficiem foliorum sparsos compositis, margini humili reflexo denticulato præditis; æcidiosporis ellipticis v. subglobosis, 18-23 × 16-19, episporio tenui, subtiliter verruculoso præditis; soris teleutosporiferis eadem distributione qua æcidia, pulvinatis, prominentibus, firmis, obscure brunneis teleutosporis clavatis v. fusiformibus, basi attenuatis, apice rotundatis v. rarius conicis, ad septum constrictis, levibus, flavo-brunneis, apice valde incrassatis et sæpe hyalinis, 42-62 × 16-22, pedicello firmo, hyalino usque 80 μ. longo suffultis.

Hab. in foliis Lysimachiæ clethroidis, Tokyo Japoniæ (Shirai). — Teleutosporæ huius speciei perfecte cum eis *Pucciniæ Dayi* Clint. ex America boreali congruunt, sed ob æcidia omnino diversa species.

158. **Puccinia Euphorbiæ** P. Henn. Syll. XI, p. 195. — var. **minor** 1177
Diet. et Holw. Bot. Gaz. 1897, p. 31 — Differt a forma typica sporis minoribus, 40-55 μ. longis.

Hab. in foliis vivis Euphorbiæ spec. in Mexico (Holway).

159. **Puccinia destruens** P. Henn. Hedw. 1895, p. 92. — Soris ra- 1178
mos, folia, caules tegentibus, deformantibus destruentibusque, confluentibus, late effusis, atris, pulverulentis; uredosporis subglobosis, brunneis, aculeatis, poro medio, 21-24 μ.; teleutosporis intermixtis, late ellipsoideis, medio septatis, paulo constrictis, brunneis v. fusco-brunneis, utrinque rotundatis, obtusis, 28-35 × 23-36, episporio castaneo, 3 μ. crasso, aculeato; pedicello brevi, hyalino, 9-11 μ. longo, 5-6 μ. crasso.

Hab. in ramis, foliis caulibusque Euphorbiaceæ indeterminatæ in prov. Goyaz Brasiliæ (Ule).

160. **Puccinia Plantaginis** West — Syll. VII, p. 662 (diagn. incompl.). 1179
— Soris hypophyllis, sparsis vel rarius confluentibus, parvis, rotundatis, pustuliformibus, primo epidermide tectis, demum denudatis, epidermide rupta circumdatis; uredosporis rotundatis v. ovoideis, membrana fusca, tenui, æquali, echinulata, poris germinationis binis oppositis, 24-30 μ. diam.; teleutosporis ovoideis

v. piriformibus, medio non constrictis, apice rotundatis, basi rotundatis v. attenuatis, membrana æquali, castanea, verruculosa, 33-42 × 24; pedicello hyalino, fragili.

Hab. in foliis Plantaginis lanceolatæ in Belgio.

161. **Puccinia Bougainvilleæ** Schroet. Hedw. 1896, p. 232. — Soris 1180
hypophyllis sparsis, rotundatis, 0,4-0,6 mm. diametro, applanatis, epidermide rupta cinctis, atro-ochraceis; teleutosporis ellipsoideis vel subclavatis, 30-50 μ. plerumque 37-44 × 26-30 μ., utrinque rotundatis, medio septatis constrictisque, episporio 3 μ. crasso, levi, læte brunneo; pedicello usque ad 44 μ. longo, 9 μ. crasso, hyalino.

Hab. in foliis vivis Bougainvilleæ stipitatæ, Quebrada de Colanchanga Sierra de Cordoba (Hieronymus) et B. frondosæ, Sierra de Tucuman (Lorentz) in Argentina. — An *Æcidium Bougainvilleæ* Spog. huc est ducendum?

162. **Puccinia amphispila** Diet. et Holw. Erythea 1895, p. 79. — 1181
Soris amphigenis, magnitudine variis, punctiformibus usque 2 mm. diam., sparsis vel circa sorum centralem circulum incompletum formantibus, pulverulentis; uredosporis ellipticis v. subglobosis, bruuneolis, echinulatis, 25-31 × 20-23; teleutosporis ellipticis, utrinque rotundatis, ad septum modice constrictis, apice ac fine superiore cellulæ inferioris papillam hyalinam applanatam gerentibus, levibus, brunneis, 30-40 × 17-25, pedicello sublongo delicato deciduo fultis.

Hab. in foliis Polygoni spec. in California.

163. **Puccinia septentrionalis** Juel, Mycol. Beiträge IV, 1895, p. 383 1182
(*P. mammillata* Juel, Mycol. Beitr. I, nec Schroet.). —Æcidiis sine spermogoniis amphigenis, numerosis sed non gregariis, in maculis turgidis, effusis sæpius obscure violaceis, pseudoperidi plerumque late aperto, redroflexo; soris uredosporiferis hypophyllis; mox nudis, pulveraceis, in pagina superiore foliorum maculas pallidas formantibus; uredosporis 20 μ. diam., contentu dilute aurantiaco, episporio fusco, aculeato, poris germinationis 3-4; teleutosporis in soros minutos, atro-fuscos, hypophillos, rarissime etiam epiphyllos congestis, varia magnitudine, ellipsoideis, ovoideis v. piriformibus, 28-48 × 13-23, facile deciduis, cellula superiore vertice incrassata v. sæpe verrucosa et summo apice hyalina, cellula inferiore poro germinationis lateriali sæpe verruciformi; episporio levissimo, castaneo, contentu hyalino.

Hab. in foliis vivis Polygoni vivipari in montibus Scan-

dinaviæ; æcidiosporæ in Thalictro alpino (= *Æcidium Sommerfeltii* Johans.) ibique et in Helvetia, Groenlandia, Islandia.

164. **Puccinia monticola** Kom. in Fg. Rossici n. 61 (Diagnosim non vid.). 1183

Hab. in foliis vivis Polygoni alpini in Turkestania.

165. **Puccinia biformis** Lagh. Bol. Brot. 1890, vol. VIII, p. 137. 1184

— Soris in foliis rotundatis, in caulibus elongatis, primo epidermide tectis, dein denudatis, atro-fuscis; uredosporis 21-33 μ. diam., globosis v. ovoideis, biformibus, membrana flavo-brunnea, aculeata v. membrana crassiore, castanea, verruculosa præditis; teleutosporis 30-39 × 21-27, oblongis, medio haud v. levissime constrictis, apice rotundatis v. subacuminatis, apiculo hyalino auctis, basi rotundatis v. angustatis, membrana castanea, verruculosa, ad apicem numquam incrassata et pedicello deciduo præditis.

Hab. in foliis et caulibus Rumicis bucephalophori in Lusitania.

166. **Puccinia punctiformis** Diet. et Holw. Erythea 1894, p. 128. — 1185

Soris amphigenis, vulgo hypophyllis, sparsis, punctiformibus, ca. 0,2-0,4 mm. diam., uredosporiferis ochraceis, teleutosporiferis obscure brunneis; uredosporis obovatis, brunneolis, poris 4 germinationis æquatorialibus instructis, episporio tenui echinulato præditis, 28-40 × 20-27; teleutosporis plerumque clavatis, basi attenuatis, apice rotundatis v. conicis, 5-8 μ. incrassatis, leniter constrictis, levibus, brunneis, 34-45 × 21-29; pedicello circiter dimidio minore quam spora, firmo.

Hab. in foliis Rumicis salicifolii, Berkeley, Californiæ (Blasdale).

167. **Puccinia æqualis** P Henn. Pilz. Ostafr. p. 50. — Maculis pal- 1186

lidis, fuscescentibus; æcidiis sparsis, rotundatis, hypophyllis, ochraceis; pseudoperidiis gregariis, subhemisphæricis, diutius clausis, dein apertis, fuscis; æcidiosporis subglobosis v. oblongis, acutangulis, flavis, dein subfuscescentibus, 25-35 × 18-25; episporio hyalino, aculeato, 5-8 μ. incrassato; soris uredosporiferis hypophyllis, minutissimis, punctiformibus, sparsis, ochraceis, subpulverulentis; uredosporis oblongis v. ovoideis, aculeato-verrucosis, flavo-brunneis fuscescentibus, 26-38 × 22-26; episporio 1-2 μ. crasso, brunneo, dense aculeato, aculeis circ. 1 μ. longis; soris teleutosporiferis minutissimis, punctiformibus, solitariis, sparsis, atris, hypophyllis; teleutosporis late ellipsoideis, verrucosis, medio 1-septatis, vix constrictis, 30-36 × 20-24, atrorufis; episporio tenui, dense verrucoso; pedicello usque ad 25 × 7 μ., hyalino.

Hab. in foliis vivis Antidesmæ spec.? in Africa trop. (Volkens).

168. **Puccinia Boehmeriæ** P. Henn. Hedw. 1895, p. 336. — Maculis 1187
fuscis; soris uredosporiferis gregariis, rotundatis, sæpe nervos sequentibus, oblongato-pustulatis, ochraceo-fuscis; uredosporis ovoideis, subglobosis, oblongis, interdum unilateraliter curvulis, aculeato-verrucosis, hyalino-flavescentibus, 15-26 × 14-20, episporio aculeato; soris teleutosporiferis sparsis, hypophyllis, pulvinatis, ochraceis; teleutosporis clavatis, ovoideis, apice valde incrassatis, rotundato-obtusis, subapplanatis v. emarginatis, medio septatis, constrictis, loculis subglobosis v. subtriangularibus, levibus, subflavis v. flavo-fuscescentibus, 25-40 × 15-28; pedicello hyalino, persistente, recto v. curvulo, ca. 40 μ. longo, 4-5 μ. crasso.

Hab. in foliis Boehmeriæ spec. pr. Blumenau Brasiliæ (Möller).

169. **Puccinia Quercus** Otth, Bern. Mittheil. 1868, p. 68. — Teleuto- 1188
sporis, in soris *Uredinis Quercus* Brond. inspersis, læte fulvis, obovatis v. subellipsoideis, utrinque late rotundatis, æqualiter aut subinæqualiter bilocularibus, non constrictis, levissimis, apiculo minuto plerumque parum evoluto, semper tamen conspicuo; stipite hyalino fragilissimo.

Hab. in foliis Quercus in Helvetia.

170. **Puccinia Mougeotii** Lagh. Ured. herb. Fries. 1895, p. 66. — 1189
Æcidiis, uredosporis et teleutosporis eodem tempore evolutis; æcidiis hypophyllis v. caulinis, irregulariter dispositis, elongato-cupulatis, margine erecto; æcidiosporis polygono-globosis, circiter 18 μ. diam., membrana tenui, subtiliter verruculosa; soris uredosporiferis hypophyllis v. caulinis, rotundatis v. oblongis, sparsis, brunneis; uredosporis subglobosis, 20 μ. diam., membrana æquabili crassitudine, luteola, echinata; soris teleutosporiferis hypophyllis v. caulinis, elongatis, diu epidermide tectis, denique liberis, nigro-brunneis, pulveraceis; teleutosporis obovatis, medio lenissime constrictis, apice rotundatis, basin versus attenuatis, 30-35 × 15-22 membrana luteo-fusca, levi, ad apicem sporæ incrassata; pedicello deciduo.

Hab. in foliis et caulibus vivis Thesii alpini in Gallia, Suecia.

1. **Puccinia Passerinii** Schroet. Ber. Schles. Ges. 1876, p. 37, *P.* 1190
Thesii Syd in Uredineen n. 339; Lagerheim, Ured. Herb. Fries p. 67; Syll. VII, p. 602 (ut subspec.). — Æcidiis et spermogoniis

amphigenis, totum folium occupantibus, sparsis v. congregatis, parvis, cupuliformibus; æcidiosporis angulato-rotundatis, 18 μ. diam., membrana tenui, subtiliter tuberculata; soris teleutosporiferis foliicolis v. caulincolis, parvis, ovalibus v. rotundatis, primo epidermide tectis, dein liberis, nigris; teleutosporis forma varia, medio non constrictis, utrinque rotundatis, 35-45 × 25-32, membrana crassa, æquabili crassitudine, castanea, tuberculata; pedicello caduco.

Hab. in foliis et caulibus Thesii ebracteati in Germania, Italia, Dania.

172. **Puccinia Guilleminеæ** Diet. et Holw. Bot. Gaz. 1897, p. 34. — 1191
Soris plerumque epiphyllis, rotundis, $^1/_2$-1 mm. diam. crassis, interdum confluentibus, brunneis; teleutosporis ellipticis, utrinque rotundatis, lenissime constrictis, 29-37 × 20-23, episporio obscure castaneo, levi, apice valde incrassato (4-7 μ.); pedicello longo, fragili.

Hab. in foliis Guilleminеæ spec pr. urbem Mexico (Holway).

173. **Puccinia Steinmanniæ** Diet. et Neg. Engl. Jahrb. 1897, p. 156. — 1192
Soris minutis, verruciformibus, in acervulos plus minusve expansos ampingenos consociatis, castaneis, epidermide diu tectis, denique liberia, pulveraceis; teleutosporis forma irregulari, ellipticis, oblongis v. cuneiformibus, haud raro angulatis, basi rotundatis v. attenuatis medio-constrictis, 35-48 × 22-33, fuscis, episporio levi, nonnumquam grosse plicato indutis, pedicello tenui, fragili, 25-40 μ. longo suffultis

Hab. in foliis vivis Steinmanniæ graminifoliæ pr. Santiago in Chile (Meyer). — Teleutosporæ simplices ellipticæ v. subglobosæ numerosæ adsunt bilocularibus immixtæ.

174. **Puccinia immaculata** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII 1193
Afd. III, n. 10, 1897, p. 20 extr. — Hypophylla, totum folium occupans, maculas non efficiens; soris parvis, ca. $^1/_3$ mm. diam., semiglobosis, æqualiter dispersis, non confluentibus, nigro-castaneis; teleutosporis brevibus, ca. 26-29 × 18, medio non constrictis, utraque cellula fere semiglobosa, membrana crassiuscula, pallide brunnea, apice leviter incrassata; pedicello persistente, sæpe 50 μ. longo.

Hab. in foliis Jobiniæ hernandifoliæ, Rio Grande do Sul, Silveira Martins Brasiliæ (Malme).

175. **Puccinia Habenaria** P. Henn. Pilz. Ostafr. p. 50. — Soris ure- 1194
dosporiferis amphigenis caulicolisque, sparsis v. gregariis, pustulatis, minutis, flavo-ochraceis; uredosporis ovoideis v. subglobosis

ellipsoideisque, subflavis, granulato-verrucosis, 16-20 × 13-16 episporio tenui granuloso-verrucoso; soris teleutosporiferis sparsis, minutissimis, punctiformibus, fuscis; teleutosporis oblongis, subclavatis, flavo-subfuscescentibus, granulatis, apice obtusis vix incrassatis, medio subconstrictis, 24-36 × 11-13 pedicello brevi subhyalino.

Hab. in foliis caulibusque Habenariæ sp. in Africa trop. (Volkens).

176. **Puccinia cinnamomea** Diet et Holw. Bot. Gaz. 1897, p. 29. — 1195
Soris irregulariter v. lineariter aggregatis, hypophyllis, punctiformibus. pulvinatis, cinnamomeis; teleutosporis oblongis, 28-38 × 14-20, constrictis, utrinque rotundatis, apice calyptrato- vel raro conico-incrassatis, membrana pallide cinnamomea, levi; pedicello sporam æquante v. paulo breviore, firmo, hyalino.

Hab. in foliis Orchideæ cujusdam pr. Cuernavaca in Mexico (Holway). — Teleutosporæ statim post maturitatem germinantes.

177. **Puccinia Bomareæ** P. Henn. Hedw. 1896, p. 242. — Soris ure- 1196
dosporiferis sæpe in maculis fuscis, hypophyllis pulvinatis diutius tectis, oblongis vel rotundatis ochraceis; uredosporis subglobosis vel ellipsoideis, flavis vel citrinis, 20-25 × 16-23, intus punctatis; episporio luteo-brunneo punctato-verrucoso 5-6 μ. crasso; soris teleutosporiferis amphigenis, atris, pulvinatis; teleutosporis subrectangularibus vel late ellipsoideis, flavis vel citrinis, apice obtusis vel applanatis, raro subapiculatis, rufobrunneis, medio 1-septatis constrictis, 26-35 × 20-26; episporio brunneo vel rufobrunneo, 3 μ. crasso; pedicello brevi rufobrunneo.

Hab. in foliis vivis Bomareæ edulis in Brasilia (Ule). — *P. Allii* (DC.) Sacc. affinis.

178. **Puccinia Blasdalei** Diet. et Holw. Erythea 1893, p. 248. — 1197
Æcidiis laxe orbiculariter dispositis; pseudoperidiis fissura longitudinali apertis, æcidiosporis aurantiacis, subtiliter verrucosis, ovoideis v. polygonalibus 24-31 × 18-24; soris uredosporiferis oblongis, interdum confluentibus, epidermide cinctis; uredosporis late ovatis v. subglobosis, echinulatis, 27-32 × 22-30, contentu aurantiaco, protoplasmate farctis; soris teleutosporiferis, atris, confluentibus, epidermide tectis; teleutosporis oblongis v. clavatis, valde irregularibus apice plerumque truncatis v. punctiformibus basi rotundatis v. attenuatis, ad septum leniter constrictis, fuscis, apice modice incrassatis, 36-60 × 18-27; pedicello circiter 20-25 μ. longo; paraphysibus castaneis.

Hab. in foliis scapisque vivis Allii serrati in California (Blasdale). — Adsunt teleutosporæ simplices bilocularibus immixtæ.

179. **Puccinia granulispora** Ell. et Gall. Bull. Torr. Bot. Club. 1895, p. 61. — Soris linearibus, 1/4-1 cm. longis, in foliis brevioribus, 1/2 mm. latis, primo tectis, demum epidermidem in longitudine findentibus, sed parum prominentibus; uredosporis subglobosis, pallidis, subtiliter echinulatis, 20-30 × 15-20; teleutosporis oblongis, clavatis v. obovatis, 45-60 × 20-25, levibus, contentu granuloso, leniter constrictis, loculo superiore subgloboso v. elliptico, obscuriore, apice rotundato v. obtuso-punctato v. truncato modice incrassato, loculo inferiore pallidiore, cuneato; pedicello sporam non æquante, colorato; mesosporis non numerosis, brevioribus, obovatis, 20-23 μ. longis. 1198

Hab. in scapis foliisque Allii cernui, Montana, Amer. bor. (Kelsey). — A *P. Porri* differt soris linearibus et teleutosporis majoribus.

180. **Puccinia Ficalheana** Lagh. Bol. Brot. VIII, 1890, p. 137. — Soris teleutosporiferis amphigenis, elongatis, sparsis v. circulariter ordinatis, primo epidermide tectis, dein denudatis, atris; teleutosporis ovoideis, medio non v. vix constrictis, apice et basi rotundatis, membrana crassa, castanea, ad apicem non incrassata, scobiculis rotundatis v. canaliformibus instructa et pedicello deciduo præditis, 42-54 × 30-36. 1199

Hab. in foliis Scillæ campenulatæ in Lusitania.

181. **Puccinia Funkiæ** Diet. Hedw. 1898, p. 214. — Soris hypophyllis, singulis epiphyllis, circularibus usque 4 mm. diam., loculis numerosis compositis, vel punctiformibus, sparsis; atris, epidermide tectis, paraphysibus brunneolis circumdatis; uredosporis ellipticis, ovoideis v. subglobosis, 25-35 × 20-25, aurantiacis, episporio flavescenti papillato crasso indutis; teleutosporis clavatis, fusiformibus v. oblongis, apice truncatis, rotundatis v. acuminatis, mediocriter incrassatis, basi attenuatis v. rotundatis, ad septum leniter v. vix constrictis, levibus, castaneis, 34-62 × 17-23, pedicello brevi vel usque ad 25 μ. longo suffultis. 1200

Hab. in foliis Funkiæ ovatæ in horto botanico, Tokyo Japoniæ (P. Miyoshi). — *P. Gladioli* proxima, sed omnino diversa.

182. **Puccinia Pasitheæ** Diet. et Neg. Engl. Jahrb. 1897, p. 156. — Uredosporis globosis v. late ellipticis, 20-25 μ. diam., episporio 2½-3 μ. crasso, dilute fusco, echinulato, poris ca. 8 perforato in- 1201

dutis; soris teleutosporiferis amphigenis, præsertim epiphyllis, rotundis v. oblongis, $^1/_5$-1 mm. diam., sparsis, pulvinatis, atris; teleutosporis forma varia, obovatis usque fusiformibus vel apice vel basi angustatis vel utrinque attenuatis, ad septum leniter vel vix constrictis, 30-53 × 17-27, brunneis, levibus, apice incrassatis et sæpe pallidioribus; pedicello firmo, hyalino, usque ad 50 μ. longo. Adsunt numerosæ teleutosporæ uniloculares obovatæ v. oblongæ.

Hab. in foliis vivis Pasitheæ cœruleæ variis locis in Chile (Neger). — An status æcidiosporiferus est *Æcidium Pasitheæ* Diet. et Neg.?

183. **Puccinia Habranthi** Diet. et Neg. Engl. Jahrb. 1897, p. 157. — 1202
Spermogoniis in maculis purpureis, usque ad 5 mm. longis, 3 mm. latis, numerosis, ca. 150 μ. latis, 200 μ. longis; æcidiis amphigenis in acervulos varios, in extrema parte foliorum cumulatos consociatis, margine reflexo, irregulariter denticulato; æcidiosporis polyhedricis v. oblongis, 25-30 × 18-25, subtiliter verruculosis, aurantiacis; soris teleutosporiferis in utraque pagina foliorum dispersis, circularibus, 1-1 $^1/_2$ mm. diam., epidermide plumbea tectis, pulverulentis; teleutosporis ellipticis v. oblongis, 42-75 × 27-45, apice interdum papilla vix prominente auctis, episporio tenui, intense castaneo, minute verrucoso indutis, pedicello brevissimo, caduco suffultis.

Hab. in foliis vivis Habranthi andicolæ in Chile (Neger).

184. **Puccinia Reichei** Diet. et Neg. Engl. Jahrb. 1897, p. 157. — 1203
Spermogoniis globosis, ca. 150 μ. diam.; æcidiis amphigenis, seriatim dense aggregatis et in acervulos irregulares v. ellipticos congestis; pseudoperidiis oblongis, margine albo, caduco, vix inciso; æcidiosporis oblongis v. subglobosis, 22-30 × 18-25, aurantiacis, subtiliter verruculosis; soris teleutosporiferis mediocribus, ellipticis, in lineas longas sæpe confluentibus, primo epidermide fissa cinctis, mox nudis, pulveraceis, castaneis; teleutosporis ellipticis, utrinque rotundatis, medio vix v. non constrictis, episporio tenui, dilute castaneo, grosse tuberculato indutis, apice papilla distincta hyalina ornatis, 35-48 × 25-33; pedicello brevi, caduco.

Hab. in foliis vivis Habranthi chilensis in Chile (Neger).

185. **Puccinia Sisyrinchii** Mont., Syll. VII, p. 727 (diagnosis incom- 1204
pleta!). — Uredosporis amphigenis, oblongis, striiformibus confluentibusque, epidermide pallida, velata tectis; uredosporis subglobosis vel ellipsoideis, sæpe acutangulis, pallide flavis, 20-30 × 18-24, er

sporio subflavo, 3–5 μ. crasso levi vel punctato pedicello hyalino usque ad 15 μ. longo, fragili; soris teleutosporiferis oblongis striiformibus, epidermide rupta tectis, dein atris; teleutosporis oblongis vel subclavatis apice obtuse rotundatis vel subpapillatis, incrassatis, medio 1-septatis plus minus constrictisque, brunneis vel pallide ochraceis 43-52 × 17-24; episporio apice incrassato, brunneo levi; pedicello subhyalino vel brunneolo, 30-50 μ., longo, ca. 7-9 μ. crasso.

Hab. in foliis Sisyrinchii palmifolii in et graminifolii Chile, Argentina (Hieronymus).

186. **Puccinia angulata** Diet. et Neg. Engl. Jahrb. 1897, p. 156. — 1205
Spermogoniis nullis; æcidiis solitariis, dispersis, in maculis flavidis minutis foliorum, valde inconspicuis, margine pseudoperidii reflexo, lacerato, albo; æcidiosporis oblongis, angulatis, 21–28 × 15–20, minutissime verrucosis; soris uredosporiferis dispersis in maculis flavis, minutis, epidermide diu tectis, deinde, ea fissa, circumdatis, ellipticis, ochraceis; uredosporis ovoideis, ellipticis v. subglobosis, 22-28 × 20-25, episporio crasso, pallidissimo, brevissime echinulato præditis; soris teleutosporiferis minutis v. mediocribus, sparsis v. in maculis stramineis plus minusve dense aggregatis, amphigenis, epidermide tectis, nigris, paraphysibus arcuatis, dilute brunneis circumdatis; teleutosporis forma irregulari, oblongis v. clavatis, angulatis, apice truncatis v. attenuatis, rarius rotundatis, basi rotundatis v. angustatis, ad septum leniter constrictis. 30-48 × 17-25 membrana flavo-brunnea, apice castanea et modice incrassata, levi indutis; pedicello tenui, usque ad 20 μ. longo, brunneolo. Teleutosporæ simplices numerosæ cum bilocularibus commixtæ sunt.

Hab. in foliis scapisque vivis Sisyrinchii pedunculati duobus locis in Chile (Neger).

187. **Puccinia Dichelostemmæ** Diet. et Holw. Erythea 1895, p. 78. 1206
— Soris nigris oblongis 2-3 mm. longis, pulverulentis, epidermide fissa cinctis; sporis late ellipticis v. subsphæricis, 53-68 × 48-55, medio non constrictis membrana æqualiter circiter 5 μ. crassa, levi, atro-brunnea opaca præditis, pedicello brevi vulgo lateraliter inserto fultis.

Hab. in foliis Dichelostemmæ congestæ, Washington Amer. bor.

188. **Puccinia Pitcairnia** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 214. — Sorisuredosporiferis hypophyllis, parvis, linearibus, epidermide fissa semitectis, fuscis; uredosporis rotundatis v. ovoideis. 24-33 μ.

diam., membrana crassa, fusca, aculeata; soris teleutosporiferis hypophyllis, punctiformibus, subnigris, primo epidermide tectis, firmis; teleutosporis uni- vel bicellularibus, ovoideis v. oblongis, 30-48 × 21-24, medio paullo constrictis, apice plerumque rotundatis, membrana fusca, levi, apice valde incrassata; pedicello hyalino, persistenti.

Hab. in foliis Pitcairniæ sp. in Æquatoria.

189. **Puccinia Hypoxidis** Mc Alp. Agr. Gaz. Sydney. VI, 1896, p. 4, fig. 15-18. — Soris uredosporiferis amphigenis, minutis, fuligineis, rotundis v. ovalibus, bullatis, epidermide rupta cinctis, gregariis v. sparsis; uredosporis globosis v. ovalibus, pallide luteis, levibus, 19 ½-22 ½ μ. diam. vel 19 ½-22 ½ × 17-19 ½; soris teleutosporiferis amphigenis, nigris, bullatis, confluentibus, folium deformantibus, epidermide diu tectis; teleutosporis castaneis, elongato-clavatis, medio vix vel non constrictis, 38-62 × 17-25, loculo superiore quadratico, oblongo vel clavato, apice sæpe truncato valdeque incrassato, obscure castaneo, plerumque breviore, interdum centraliter v. lateraliter valde rostrato, loculo inferiore basim versus attenuato, dilutiore, flavo; pedicello pallide luteo, persistente, 25-30 μ. longo, 5 ½ μ. lato; mesosporis pallidis v. castaneis, apice rotundatis incrassatisque, rostratis, 25-36 × 11-18. 1207

Hab. in foliis Hypoxidis hygrometricæ, Victoria Australiæ.

190. **Puccinia rimosa** Link, Wint. in Hedw. 1880, p. 28. — Singularis planta; rimas replet profundas angustas, 1-5 mm. longas æquales, sæpe caulem circumcirca cingentes; sporis maximis, fuscis, aliis multo minoribus oblongis, sæpe didymis, pellucidis immixtis. 1208

Hab. in calamis Isolepidis nodosæ Victoria Australiæ. — Forte huc spectat *Cæoma rimosum* Link in Linnè Spec. pl. IV, T. VI, 2, p. 6; exsicc. Thüm. Myc. univ. n. 1235 et 1436 in calamis *Junci acuti*. An diversa a *P. cancellata?*

191. **Puccinia nigrovelata** Ell. et Tracy Bull. Torr. Bot. Club. 1895, p. 60. — Soris uredosporiferis brevibus, 1-2 mm., oblongo-ellipticis, margine erecto epidermidis ruptæ cinctis; uredosporis ovatis v. ellipticis, pallide luteolis, aculeolatis, 15-24 × 12-15, in cumulo cinnamomeis; soris teleutosporiferis applanatis, 1-3 mm. longis, ¾-1 mm. latis, epidermide nigro-translucente dense tectis; teleutosporis clavato-oblongis, 35-55 × 14-18, valde constrictis, loculo superiore latiore et obscuriore, loculo inferiore pallido, in pedicel- 1209

lum angustato, episporio levi, apice rotundato v. obtuse acutato, papilla hyalina v. nulla ornato, incrassato; pedicello plerumque sporam non æquante.

Hab. in foliis culmisque Cyperi strigosi, Mississippi Amer. bor. (Tracy), et Cyperi spec. pr. urbem Mexico (Holway).

192. **Puccinia subcoronata** P. Henn. Hedw. 1895, p. 94. — Maculis 1210
flavis, sæpe confluentibus; soris uredosporiferis amphigenis, diutius tectis, ochraceis, oblongis, rotundatis v. confluentibus; uredosporis ellipsoideis, ovoideis, hyalino-flavis, verrucoso-echinulatis, 14-24 × 12-18; pedicello hyalino, brevi v. obsoleto; soris teleutosporiferis sparsis v. subconfluentibus, rotundatis, punctiformibus v. oblongis, atris; teleutosporis clavatis, vertice incrassatis, subobtusis v. apiculatis, denticulatis subcoronatisque, flavo-brunneis, levibus, ad septum haud constrictis, 30-50 × 12-18; pedicello subflavo, subclavato, 15 μ. longo, 6-8 μ. crasso.

Hab. in foliis vivis Cyperi spec. pr. Goyaz Brasiliæ (Ule).

193. **Puccinia Cladii** Ell. et Tracy, Bull. Torr. Bot. Club. 1895, p. 61. 1211
— Culmicola; soris uredosporiferis parvis, ellipticis, subconfluentibus, et tunc sæpe 2 cm. vel ultra longis, primo tectis, dein epidermide rupta luteola limitatis; uredosporis ovatis v. ellipticis, 22-25 × 20, vel subglobosis, 18-20 μ. diam., ex hyalino obscure rubro-brunneis v. ferrugineo-luteis, aculeatis, pedicellatis; teleutosporis in soros similes sed obscuriores congestis, clavatis v. oblongis, 45-60 × 18-20, constrictis, obscure brunneis, loculo inferiore angustiore et pallidiore, episporio levi v. sursum subtiliter granuloso-asperulo, apice obtuso-rotundato, valde incrassato v. oblique papillato v. interdum subtruncato-applanato; pedicello sporam non æquante, hyalino v. dilute tincto, firmo.

Hab. in culmis pedunculisque Cladii effusi, Mississippi, Amer. bor. (Tracy).

194. **Puccinia canaliculata** (Schwein.) Lagh. Ured. herb. Fries. 1895, 1212
p. 51, *Sphæria canaliculata* Schwein. Syn. Fung. Amer. bor. n. 1487; *Puccinia cellulosa* Berk. et Curt. in Grev. XX, p. 108. — Soris teleutosporiferis hypophyllis, linearibus, congregatis, epidermide tectis, brunneis; teleutosporis dense constipatis, pariete paraphynum fuscarum angustarum circumdatis, angustis, medio non v. leniter constrictis, apice plerumque oblique acuminatis, basi attenuatis, 50-60 μ. longis, 12-17 μ. latis, membrana levi, luteola, ad apicem sporæ valde incrassata et obscuriore; stipite spora breviore, firmo, luteolo. Uredosporæ non visæ.

Hab. in Cypero et in involucro Scirpi in Amer. bor. (Schweinitz).

195. **Puccinia Mac-Clatchieana** Diet. et Holw. Erythea 1894, p. 127. 1215
— Hypophylla; soris punctiformibus, pulvinatis, sparsis v. secus lineas dispositis, sed non confluentibus; teleutosporis gracillimis, clavatis v. fusiformibus, apice truncatis v. rotundatis v. obconicis 6-11 μ. incrassatisque, deorsum ratenuatis, ad septum constrictis, levibus, brunneis, 40-75 × 18-23; pedicello firmo, atro-brunneo, sporam æquante.

Hab. in foliis Scirpi silvat Pasadena Californiæ (Mc Clatchie).

196. **Puccinia Caricis-frigidæ** Ed. Fisch. Bull. Herb. Boiss. 1897, 1214
p. 396. — Uredosporis (in soris teleutosporiferis) solitariis, globosis, applanato-globosis v. ellipsoideis, 21-26 μ. diam., dilute fuscis, laxe et minute aculeatis, aculeis hyalinis, conicis, poris germinationis 2; soris teleutosporiferis plerumque hypophyllis, initio epidermide tectis, dein erumpentibus, fornicatis, plus minusve elongatis, 1-2 mm. longis, $^1/_2$ mm. latis, nigris; teleutosporis plerumque piriformibus v. clavatis, apice rotundatis, basi in pedicellum attenuatis, plus minusve constrictis, levibus, 42-58 × 18-25, loculo inferiore longiore et angustiore, pallidiore, incrassato (6-9 μ.), loculo inferiore dilute fusco; pedicello longo, firmo, hyalino, non caduco.

Hab. in foliis vivis Caricis frigidæ in Helvetia. — Status æcidiosporif. nascitur eisdem locis in Cirsiis.

197. **Puccinia Atkinsoniana** Diet. Bull. Cornell Univ. III, n. 1. 1897, 1215
pag. 19. — Soris uredosporiferis hypophyllis, paucis epiphyllis, ellipticis v. linearibus, cinnamomeis, epidermide rupta cinctis; uredosporis ellipticis, obovatis v. raro sphæricis, 22-30 × 17-22, apicem versus 2 poris germinationis, episporio spinuloso, flavo-brunneo præditis; soris teleutosporiferis hypophyllis, nigro-brunneis, pulvinatis, circularibus, ellipticis v. linearibus, firmis; teleutosporis plerumque clavatis, ad septum typice constrictis, 40-60 × 18-28, loculo superiore sphærico v. ovali, apice rotundato, episporio crasso, apice 5-10 μ. diam. ornato, loculo inferiore vulgo cuneiformi, in pedicellum attenuato v. basi rotundato, episporio levi, brunneo instructis; pedicello 20-60 μ. longo, persistente.

Hab. in foliis Caricis luridæ, Auburn, Alabama Amer. bor.

198. **Puccinia vaginatæ** Juel. On nögra heter. Ured. p. 56; Oefver- 1216
sigt af K. Vet.-Akad. Förhandl. 1896, n. 3, p. 215 cum icone; *Æcidium Saussureæ* Joh. a *silvestre* Juel l. c. p. 53. — Pseudo-

peridiis in maculis numerosis pallidis, cellulis peridialibus 27-34 μ. latis, semper spermogoniis præditis; æcidiosporis 14-18 μ. diam.; uredosporis echinulatis, ferrugineis, 22 × 16; teleutosporis fuscis, 41-48 × 16-20, pedicellis persistentibus, 40-50 μ. longis.

Hab. æcidia in foliis Saussureæ alpinæ, uredo- et teleutosporæ in foliis Caricis vaginatæ in Jemtlandia Sueciæ.

199. **Puccinia tecta** Ell. et Barth. Erythea 1896, p. 79. — Hypophylla, per totum folium sparsa; soris uredosporiferis mox epidermidem rumpentibus et sporas abundanter emittentibus; uredosporis late ellipticis v. obovatis, 20-25 × 15-18, primo distincte echinulatis, subhyalinis, deinde levibus, pallide luteolis, granulosis, eguttulatis; episporio tenuissimo, usque ad 1 μ. crasso; paraphysibus interdum numerosissimis; soris teleutosporiferis abundantibus, perexiguis, ca. $^1/_4$ mm. diam., subglobosis, persistenter tectis, sæpe confluentibus in maculis longis continuis insidentibus et magnam foliorum partem occupantibus; teleutosporis pallide v. obscure luteis, clavatis v. oblongis, 40-60 × 15-18, loculo inferiore plerumque cuneato, subhyalino, loculo superiore sæpe in rostrum curvatum, acuminatum terminali vel rotundato, vel etiam apice applanato, guttulato v. granuloso; pedicellis firmis, hyalinis, 10-25 μ. longis. 1217

Hab. in foliis vivis Caricis sparganioidis in Kansas Amer. bor. (Bartholomew). — *Pucciniæ angustatæ* Peck proxima, sed differt ab ea soris uredosporiferis paraphysatis et soris teleutosporiferis minoribus.

200. **Puccinia Sparganioidis** Ell. et Barth. Erythea 1896, p. 2. — Amphigena; soris uredosporiferis angustissimis, aurantiacis, circiter 1 mm. longis, primo epidermide tectis, dein nudis; uredosporis obovatis v. piriformibus, aurantiacis, aculeatis, stipitatis, 22-35 × 14-20; soris teleutosporiferis minutis, ellipticis, oblongis v. linearibus, 1-$1^1/_2$, rarius 2-$2^1/_2$ mm. longis, mox nudis, subnigris; teleutosporis oblongo-ellipticis v. oblongo-clavatis, lenissime constrictis, 35-55 × 15-20, rotundatis v. sæpius apice obtuse acutatis, deorsum in pedicellum firmum persistentem, 40-50 μ. longum, subæqualem, hyalinum angustatis; episporio levi, supra distincte incrassato. 1218

Hab. in foliis Caricis sparganioidis, Kansas Amer. bor. (Bartholomew). — Soris minoribus et teleutosporis latioribus a *Pucc. ludibunda* diversa.

201. **Puccinia minuta** Diet. Bull. Cornell Univ. III, n. 1, 1897, p. 19. 1219

— Soris hypophyllis, punctiformibus, minutissimis; soris teleutosporiferis diu epidermide elevata velatis; teleutosporis utrinque rotundatis v. basi in pedicellum brevem crassum attenuatis, medio leniter constrictis, episporio levi, brunneo, apice circiter 7 μ. crasso præditis; uredosporis sphæricis (30 μ. diam.) vel late ellipticis (28–34 × 26–31), atro-brunneis, spinulosis, 3 poris germinationis instructis.

Hab. in foliis Caricis verrucosæ, Auburn, Alabama Amer. bor.

202. **Puccinia Schrœteriana** Kleb. in Zeitschr. f. Pflanzenkrankh. 1895, p. 261. — Soris teleutosporiferis minutis, e brunneo nigris, epidermidem rumpentibus, plerumque epiphyllis; teleutosporis breve clavatis, interdum elongatis v. irregularibus, medio tenuiter septatis, 40–55 μ. longis, loculo inferiore plerumque angustiore, haud v. vix incrassato, in stipitem attenuato, loculo superiore latiore, valde incrassato, obscure brunneo, apice rotundato v. acuto; uredosporis globosis, 25-25 μ. diam., subtiliter aculeolatis, brunneolis, membrana crassa; pedicello teleutosporarum longo, sporam æquante, pallide flavo. 1220

Hab. in foliis vivis Caricis Goodenoughii et C. vulpinæ in Germania. — Status æcidiosporus est *Æcidium Serratulæ* Schrœt., Sacc. Syll. VII, p. 804.

203. **Puccinia fusiformis** Diet. Hedw. 1897, p. 29. — Soris uredosporiferis minutis, breviter linearibus vel punctiformibus, hypophyllis; uredosporis ellipticis, ca. 23 × 18, pallide fuscis, breviter echinulatis; soris teleutosporiferis eadem forma qua uredosporiferis, pulvinatis ochraceis, postea nigrescentibus; teleutosporis fusiformibus, utrinque paullo angustatis vel apice rotundatis, ad septum modice constrictæ, 37–53 × 12-15 apice incrassatis (ca. 7,5 μ.), dilute fuscis, levibus, pedicello spora dimidio breviore suffultis. 1221

Hab. in foliis Caricis speciei indeterminatæ, Serra Geral Brasiliæ (Ule).

204. **Puccinia Unciniarum** Diet. et Neg. Engl. Jahrb. XXII, p. 351. — Soris maculis fuscis emortuis foliorum linearibus insidentibus, minutis, oblongis, epidermide longitrorsum fissa tectis; uredosporis ellipsoideis v. ovoideis, rarius subglobosis, 26–37 × 22–25, brunneis, echinulatis; teleutosporis clavatis, 38–60 × 15–25, apice rotundatis, basi attenuatis, ad septum modice constrictis, levibus, cellula superiore globosa castanea, inferiore triangulari, plerumque angustiore, sine colore, pedicello æquilongo hyalino suffultis. 1222

Hab. in foliis Uncinia trichocarpæ et phleoidis in silvis pr. Concepcion, Chile (Neger).

205. **Puccinia Ligericæ** Syd. Uredineen n. 676 et 677, Mycotheca Marchica n. 3534. — Æcidiis hypophyllis, irregulariter sparsis; pseudoperidiis cupulatis, margine crenatis, flavis, æcidiosporis subglobosis v. ovalibus, pallide uteolis, levibus, 12-18 μ. diam; uredosporis in soros hypophyllis, minutos rotundatos v. oblongos initio epidermide tectos dein erumpentes luteo-brunneos congestis, globosis, subglobosis v. ovalibus levibus, dilute flavo-brunneis, 30-31 × 20-23; teleutosporis in soros hypophyllos rotundatos rariu-oblongo-rotundatos minutos maculis brunneis insidentes obscure brunneos mox erumpentes congestis, oblongo-clavatis, pedicellum versus attenuatis, medio modice constrictis, levibus, poris germinationis 2 in medio loculorum dispositis instructis, 42-47 μ. longis, loculo superiore obscure brunneo, apice usque ad 9 μ. incrassato, 16-23 μ. lato, loculo inferiore luteolo-brunneo, 13-19 μ. lato; pedicello hyalino v. pallidissime luteolo, 10-15 μ. longo. 1223

Hab. æcidiola et æcidia in foliis Senecionis viscosi, uredosp. et teleutosporæ in foliis Caricis ligericæ pr. Berolinum Germaniæ.

206. **Puccinia Triodiæ** Ell. et Barth. Erxthea 1896, p. 3. — Amphigena; soris ellipticis v. oblongis, $^1/_2$-2 mm. longis, mox nudis, subpulvinatis, subnigris; uredosporis subglobosis, 18-22 μ. diam., primo hyalinis, episporio crasso, subechinulato, dein luteo-brunneis sublevibusque; teleutosporis ellipticis v. subobovatis, vix constrictis, luteo-brunneis, 22-30 × 19-22, episporio levi, apice rotundato, distincte incrassato; pedicello firmo, persistente, interdum obliquo, luteolo, 80-90 μ. longo. 1224

Hab. in foliis Triodiæ purpureæ, Kansas Amer. bor. (Bartholomew). — *P. Windsoriæ* affinis.

207. **Puccinia Schmidtiana** Diet. Berichte Naturf. Gesellschaft. Leipzig. 1895-96, p. 19 μ. *Æcidium Leucoji* Bergam. Bals. et De Not. in Erb. Critt. ital. ser. II, n. 99. — Spermogoniis hypophyllis in greges densos subrotundos dispositis, ab æcidiis annulariter circumdatis; æcidiis amonigenis et spermogoniis contrapositis, maculas flavescentes efformantibus; pseudoperidiis albis seu albo-flavis, orbiculatis, patelliformibus, margine reflexo lobato, cellulis isodiametricis, oblongo-polyhedricis v. globosis, hyalinis, verrucosis, æcidiosporas superantibus; æcidiosporis ellipsoideis v. globosis, subtiliter verrucosis, aurantiacis, 22-30 × 18-25; soris uredosporiferis amphige- 1225

nis in maculas minutas dispositis, ochraceis, breviter lirellæformibus; uredosporis globosis v. late ellipsoideis, 25–32 × 22–30, episporio pallide brunneolo, aculeato, poris germinationis numerosissimis; soris teleutosporiferis et teleutosporis ut in *Pucciniis sessilis, Phalaridis* etc.

Hab. æcidiola et æcidia in foliis vivis Leucoji æstivi et verni in Germania, Italia bor., Hungaria; uredosporæ et teleutosporæ in foliis Phalaridis arundinaceæ in Germania.

208. **Puccinia procera** Diet. et Holw. Erythea 1893, p. 249. — Soris 1226
uredosporiferis amphigenis, plerumque epiphyllis, oblongis v. linearibus, epidermide rupta vestitis, ochraceis; uredosporis ovoideis usque globosis, subtiliter echinulatis, fuscidulis, 32–45 × 30–38; soris teleutosporiferis hypophyllis, linearibus, in lineas parallelas dispositis, epidermide non rupta tectis, atris, paraphysibus numerosis, fuscis; teleutosporis forma et magnitudine varia, oblongis usque linearibus, ad septa leniter constrictis, plerumque inferne angustatis, cellula inferiore elongata, vertice plerumque truncatis, parum incrassatis, levibus, dilute fuscis, 45–100 × 18–23; pedicello brevi, fuscidulo.

Hab. in foliis Elymi condensati in California (Mc Clatchie).

209. **Puccinia pratensis** Blytt, Christiania Vid. Selsk. Forh. 1896, 1227
n. 6, p. 52. — Soris epiphyllis, parvis, ellipticis aut elliptico-oblongo-linearibus; uredosporis ferrugineo-rufis, globularibus v. obovato-globularibus, aculeatis, poris pluribus instructis, 27–30 × 24–27; teleutosporis atro-brunneis, facile deciduis, pedicellis fragilibus insidentibus, basi verticeque rotundatis, medio aliquantulum constrictis, 43,2 × 30; pedicello brevi, 10,8 μ. longo; episporio dense verruculoso, ubique crassitudinis æqualis; in cellula inferiori teleutosporæ poro in medio cellulæ vel infra medium sito.

Hab. in foliis vivis Avenæ pratensis in Norvegia et Bohemia.

210. **Puccinia polysora** Underw. Bull. Torr. Bot. Cl. 1897, p. 36, 1228
Puccinia Tripsaci Diet. et Holw. Bot. Gaz. 1897, p. 27. — Soris amphigenis, minutissimis, brevibus, numerosis sed irregulariter sparsis, diu epidermide velatis, demum erumpentibus; uredosporis magnis, late ovalibus, 30–37 × 28–33, vix echinulatis, episporio mediocri, pallide ferrugineo; teleutosporis variis, irregulariter oblongis, sæpe leniter constrictis, 33–41 × 20–25, loculis sæpe angulosis, apice non incrassatis, loculo superiore plerumque latiore, apice rotundato, pedicello firmo, fuscidulo, plerumque brevi fultis.

Hab. in foliis Tripsaci dactyloidis, Alabama Amer. bor. et Mexico.

211. **Puccinia Piptatheri** Lagh. Bol. Brot. 1890, vol. VIII, p. 136. 1229
— Soris uredosporiferis epiphyllis, oblongis v. linearibus, sæpe confluentibus, ferrugineo-brunneis; uredosporis globosis v. sæpius ovatis, 21-27 μ. diam., membrana aculeata, flavo-brunnea, contextu aurantiaco, paraphysibus nullis intermixtis; soris teleutosporiferis hypophyllis, oblongis v. linearibus, diu epidermide tectis; teleutosporis oblongis v. clavatis, medio non v. leviter constrictis, apice deplanatis v. acuminatis, basi attenuatis, 42-60 × 15-20, membrana luteola, levi, ad apicem incrassata et brunnea, pedicello brevissimo, persistenti, brunneo præditis, contextu paraphysum castanearum circumdatis.

Hab. in foliis Piptatheri multiflori in Lusitania.

212. **Puccinia substriata** Ell. et Barth. Erythea 1897, p. 47. — Am- 1230
phigena; soris uredosporiferis minutis, $^1/_4$-1 mm. punctiformibus v. ellipticis, epidermide irregulariter rupta tectis; uredosporis globosis v. obovatis, 19-23 × 22-30, ferrugineis, subtiliter echinulatis; soris teleutosporiferis plerumque oblongis, circiter 1 mm. longis, epidermide denique rupta tectis; teleutosporis obovatis v. clavatis, ferrugineis, distincte constrictis, loculo superiore plerumque latiore atque lenissime asperulo, apice modice incrassatis, regulariter rotundatis v. interdum deplanatis, haud papillatis, subtiliter striatis, 27-52 × 19-23; pedicello firmo, brevi, vix colorato, 15-20 μ. longo.

Hab. in foliis culmisque vivis Paspali setacei, Rooks County, Kansas Amer. bor. (Bartholomew). — A *Puccinia Paspali* Tracy et Earle differt soris uredosporis lenissime echinulatis et pedicello crasso, brevi.

213. **Puccinia Paspali** Tracy et Earle, Bull. Torr. Bot. Club. 1895, 1231
p. 174. — Hypophylla, interdum amphigena; soris uredosporiferis linearibus, interdum confluentibus, obscure brunneis; uredosporis globosis v. obovatis, valde echinulatis, brunneis, 25-30 × 24; soris teleutosporiferis linearibus, obscurioribus, plerumque vaginis insidentibus; teleutosporis irregularibus, 35 × 27 vel 30 × 35, plerumque ovalibus, valde constrictis, episporio apice distincte incrassato; pedicello subhyalino, oblique laterali.

Hab. in foliis vaginisque Paspali virgati, Louisiana, Amer. bor.

214. **Puccinia jubata** Ell. et Barth. Erythea, 1896, p. 2. — Soris 1232
teleutosporiferis oblongis v. linearibus, mox erumpentibus, nudis,

1-10 mm. longis, $^1/_2$-$^3/_4$ mm. latis, sæpe confluentibus, nigris; teleutosporis clavato-oblongis, leviter constrictis, 27-65 × 13-20, loculo superiore obscuriore, apice obtuso-rotundato v. truncato, papillato, recto v. obliquo, inferiore pallidiore, in pedicellum firmum persistentem coloratum, 40-70 μ. longum gradatim angustato; uredosporis paucis visis, 18-22 × 14-16, subtiliter aculeatis, luteolo-brunneis.

Hab. in vaginis culmisque vivis Hordei jubati in Kansas, Amer. bor. (Bartholomew). — *P. graminis* et *P. omnivoræ* affinis.

215. **Puccinia kansensis** Ell. et Barth. Erythea 1896, p. 1. — Soris 1233
amphigenis, plerumque epiphyllis, sparsis, minutissimis, sublinearibus, confluentibus, superficialibus; uredosporis subglobosis v. ovatis, 16-20 × 14-16, granulis dilute aureis, episporio levi, irregulari, 2-3 μ. crasso, hyalino; teleutosporis luteolo-brunneis, breve ellipticis, rotundatis, leviter constrictis, subæqualibus, loculo inferiore interdum cuneiformi, apice non incrassatis, 25-30 × 15-18; pedicello hyaline, brevi, debili, rugoso.

Hab. in foliis Buchloes dactyliferæ in Kansas, Amer. bor. (Bartholomew).

216. **Puccinia mellea** Diet. et Neg. Engl. Jahrb. 1897, p. 155. — Soris 1234
uredosporiferis epiphyllis, ochraceis; uredosporis ellipticis, 30-33 × 25-28, echinulatis, poris germinationis numerosis instructis; soris teleutosporiferis hypophyllis, linearibus v. oblongis, epidermide interdum fissa tectis, nigris, paraphysibus curvatis brunneis inclusis; teleutosporis oblongis, clavatis v. baculiformibus, 42-80 × 11-18, apice truncatis, late rotundatis v. conicis, haud raro subcoronatis, mediocriter incrassatis, dilute melleis, apice obscurioribus levibus; pedicello brevissimo, fusco.

Hab. in foliis Festucæ muralis pr. Concepcion in Chile (Neger).

217. **Puccinia Milii** Eriks. Bot. Centralbl. 1895, Bd. 64, p. 382. — 1235
Soris uredosporiferis oblongis, solitariis v. seriatim ordinatis, in maculis flavis foliorum, aurantiacis, cum paraphysibus apice globoso-inflatis; uredosporis globosis 19-24 μ., aculeatis; paraphysibus usque ad 64 μ.; soris teleutosporiferis aggregatis, oblongis, tectis, atrofuscis, hypophyllis; teleutosporis clavatis, apice explanatis, 27-41 μ. longis, cellula basali 12-14 μ., terminali 12-19 μ. lata.

Hab. in foliis vivis Milii effusi in Suecia.

218. **Puccinia graminella** (Speg.) Diet. et Holw. Erythea 1895, p. 80; 1236
Æcidium graminellum Speg. Dec. Myc. Arg. n. 29; Fg. Argent.

pug. IV, n. 91; Sacc. Syll. VII, p. 832. — Maculis luteis v. purpurascentibus; æcidiis epiphyllis, lineatim interrupte laxeque dispositis; pseudoperidiis persistentibus, apice irregulariter ac frustulatim lacero-dehiscentibus, contextu e cellulis oblongis composito; æcidiosporis ellipticis v. ovoideis, 21–29 × 18–21, episporio crasso hyalino ruguloso-striolato donatis; soris teleutosporiferis epiphyllis elongatis, pulvinatis, atro-brunneis; teleutosporis ad septum vix constrictis, supra incrassatis, levibus, brunneis, 35–48 × 22–28, pedicello firmo sporam superante fultis.

Hab. in foliis vivis Stipæ spec. vulgatissimum pr. Buenos Ayres in Rep. Argentina, in foliis Stipæ eminentis in California. — Var. **chilensis** Neger. Anal. de la Univ. Santiago Chile. 1896, XCIII, p. 783. — A typo teleutosporis interdum triloculariibus recedens. In foliis vivis Stipæ manicatæ in Chile.

219. **Puccinia exigua** Diet. Hedw. 1897, p. 29, (sub nomine *Pucciniæ pygmææ* Diet., nec Erikss.). — Maculis flavis; soris uredosporiferis exiguis ellipticis; uredosporis late ellipsoideis vel globosis, 20–26 × 18–22, aurantiacis, verruculosis, paraphysibus capitatis intricatis immixtis; soris teleutosporiferis minimis, nudo oculo vix conspicuis, atro-fuscis, epidermide tectis, paraphysibus castaneis inclusis; teleutosporis clavatis vel irregularibus, apice plerumque truncatis et paullo incrassatis, intense castaneis, basi attenuatis et dilutioribus, ad septum modice vel non constrictis, 30–40 × 15–22 levibus, breviter pedicellatis. 1237

Hab. in Poa annua, Tubarao Brasiliæ (Ule). — *Pucciniæ Poarum* Niels. valde affinis, sed teleutosporis minoribus ab ea distincta.

220. **Puccinia Cryptanthes** Diet. et Holw. Erythea 1893, p. 249. — Soris sparsis, hypophyllis v. caulicolis, oblongis, minutis, 0,1–3 mm. interdum confluentibus; uredosporis late ovalibus v. globosis, 24–28 × 20–24, valde fusco-echinulatis; teleutosporis irregularibus, plerumque oblongis, sæpe basi rotundatis, cellula superiore truncata v. apiculata, medio parum constrictis, apice incrassatis (5–10 μ.), levibus, fuscis, 34–50 × 19–30; pedicello non firmo, sporam parum superante. Adsunt sæpe teleutosporæ unicellulares numerosæ. 1238

Hab. in foliis et culmis vivis Cryptanthes Torreyanæ in California (Holway).

221. **Puccinia Gymnotrichis** P. Henn. Hedw. 1896, p. 242. — Soris amphigenis, minutis punctiformibus atris, pulvinatis oblongis vel elongatis confluentibusque; teleutosporis oblongis vel subclavatis, 1239

læte brunneis medio septatis constrictisque, apice obtusiusculis, incrassatis plus minus papillatis, 28–45 × 15–18, episporio subcastaneo, levi; pedicello brunneolo, subclavato, persistente, 30–50 × 6,8.

Hab. in foliis Gymnotrichis latifoliæ, Sierra de Tucuman Argentinæ (Lorentz).

222. **Puccinia abnormis** P. Henn. Hedw. 1896, p. 243. — Soris uredosporiferis oblongis, striiformibus, confluentibus diutius tectis, dein erumpentibus epidermide rupta cinctis, ochraceis vel atrobrunneis; uredosporis subglobosis vel ellipsoideis, fuscis, 22–27 × 16–23, episporio atrofusco dense aculeato; soris teleutosporiferis amphigenis, oblongis, striiformibus, primo tectis dein longitudinaliter erumpentibus, atrobrunneis; teleutosporis valde irregularibus diversisque lanceolatis, oblongis, clavatis vel subovoideis, sæpe apice usque ad medium bipartitis furcatis, mox longitudinaliter mox transverse vel oblique septatis vix constrictisque, interdum continuis, apice rotundato-obtusis, subapplanatis vel subapiculatis; episporio fusco-olivaceo, 2–3 μ. crasso, levi; pedicello hyalino usque ad 65 μ. longo, 5–6 μ. crasso, persistente. 1240

Hab. in foliis Gymnotrichis spec. Prov. de Cordoba Argentinæ (Galander).

223. **Puccinia substerilis** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 58. — Soris plerumque hypophyllis, superficialibus, pulvinatis, ellipticis, atro-brunneis, ½–1 mm. longis, nudis; uredosporis echinulatis, globosis v. ellipticis, 20–30 × 18–22, brunneolo-nigris, episporio subæque incrassato; pedicello gracili, hyalino, subpersistenti, 20–30 μ. longo; teleutosporis oblongis v. clavatis, pallidis, ad septum constrictis, 22–30 × 12–15, episporio levi, apice rotundato v. subtruncato, plerumque non v. vix incrassato. 1241

Hab. in foliis Chrysopogonis spec., Colorado, Amer. bor. (Baker).

224. **Puccinia omnivora** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 59. — Soris uredosporiferis minutis, 1–2 mm. longis, primo tectis, dein epidermidem rumpentibus; uredosporis luteis, globosis v. subellipticis, 18–22 μ. diam., subechinulatis; soris teleutosporiferis amphigenis, plerumque hypophyllis, oblongis v. linearibus, 1–10 mm. longis, ⅓ mm. latis, primo tectis, mox nudis et epidermide rupta cinctis, subatris; teleutosporis ellipticis oblongis, 22–40 × 12–16, vix constrictis, plerumque utrinque rotundatis, in centro sororum angustioribus pallidioribusque et in pedicellum firmum, 50–70 × 4–6, luteolo-hyalinum gradatim angustatis, locule superiore 1242

obscuriore, in sporis ellipticis apice rotundato et non papillato, in sporis angustioribus et pallidioribus papilla distincta, luteolo-hyalina, obtuse conica ornato; episporio levi, apice distincte incrassato.

Hab. in foliis culmisque Chrysopogonis nutantis, Newfield, New Jersey Amer. bor.

225. **Puccinia versicolor** Diet. et Holw. Bot. Gaz. 1897, p. 28. — 124
Maculis epiphyllis, purpureis, fuscis v. luteis; soris hypophyllis, oblongis v. linearibus; soris uredosporiferis luteis, epidermide rupta cinctis; uredosporis ovatis, 30–40 × 25–31, episporio crasso, hyalino, breviter echinulatis; soris teleutosporiferis firmis, pulvinatis, nigris, epidermide rupta cinctis; teleutosporis ellipticis, leniter constrictis, utrinque rotundatis, levibus, castaneis, apice varie incrassatis (usque ad 8 μ), 35-45 × 27-33; pedicello hyalino, firmo, usque ad 130 μ. longo.

Hab. in foliis vivis Andropogonis melanocarpi pr. Guadalajara in Mexico (Holway).

226. **Puccinia Duthia** Ell. et Tracy Bull. Torr. Bot. Cl 1897, p. 283. — 124
Amphigena; soris uredo- et teleutosporiferis minutis, ovalibus, nigris, distinctis; uredosporis subglobosis, episporio tenui leviter echinulato præditis, 30–40 × 35; teleutosporis late ovalibus, leniter constrictis, utrinque rotundatis, apice non incrassatis, levibus, in maturitate obscure brunneis, 40-45 × 26–30; pedicello ad basim sporæ distincte dilatato, deorsum attenuato, 80-120 μ. longo.

Hab. in foliis Andropogonis intermedii et A. pertusi in India orientali.

227. **Puccinia clavispora** Ell. et Barth. Erythea 1896, p. 79. — 124
Amphigena; soris linearibus, primo epidermide flavescente tectis, dein nudis, 1 mm.–1 cm. longis; uredosporis obovatis, 20-40 × 18-25, subechinulatis, verruculosis, paraphysibus firmis, clavatis; pedicello firmo sed caduco; teleutosporis clavatis, 40-60 × 18-22, medio constrictis loculo superiore subgloboso vel breviter elliptico, obscuriore, loculo inferiore pallidiore, gradatim in pedicellum firmum attenuato; episporio levi, incrasatto, apice rotundato.

Hab. in foliis Andropogonis nutantis in Kansas Amer. bor. (Bartholomew). — *Pucciniæ omnivoræ* Ell. et Ev. affinis, sed differt teleutosporis longioribus latioribusque, constrictis et pedicello brevissimo subobsoleto.

228. **Puccinia americana** Lagh. Ured. herb. Fries 1895, p. 45. —
Uredosporis echinulatis nec verruculosis, episporio tenui, cetera ut in *P. Andropogonis* Schw.

Hab. in foliis vivis Andropogonis furcati in Amer. bor.

229. **Puccinia Andropogonis** Otth, Bern. Mittheil. 1873, p. 86, nec Schw. 1246
— Soris plerumque hypophyllis, oblongis, atro-brunneis, zona violascente cinctis; teleutosporis ellipsoideis, latitudine sesquilongioribus, leviter constrictis, flavo-brunneis, levibus, articulo sup. paullo obscuriore, papilla vix manifesta; stipite flavo-brunneolo, teleutosporâ paullo longiore.

Hab. in foliis Andropogonis Ischæmi, Steffisburg Helvetia. — Verisimiliter congruit cum *P. Cesatii* Schröt., hinc mutatio nominis superflua.

230. **Puccinia Cenchri** Diet. et Holw. Bot. Gaz. 1897, p. 28. — Soris 1247
minutissimis, hypophyllis, sparsis; soris uredosporiferis epidermide rupta cinctis; uredosporis obovatis v. ellipticis, 36–45 × 30–35, fuscis, echinulatis, poris æquatorialibus instructis; soris teleutosporiferis epidermide tectis, nigris; teleutosporis oblongis, plerumque clavatis, apice truncatis v. irregulariter angulatis, interdum constrictis, basi angustatis v. rotundatis, 40–53 × 18–25, episporio levi, fusco, apice valde incrassato; pedicello brevissimo, fusco.

Hab. in foliis vivis Cenchri multiflori pr. Guadalajara in Mexico (Holway).

231. **Puccinia Panici** Diet. et Holw. Erythea 1895, p. 80. — Maculis 1248
flavis, indefinitis; soris uredosporiferis epiphyllis minutissimis, oblongis, epidermide lacerata cinctis, brunneis; uredosporis late ellipticis v. globosis, dense echinulatis, brunneis, 25–31 × 25–29; soris teleutosporiferis epiphyllis pulvinatis, nigris, minutis, oblongis v. linearibus; teleutosporis oblongis v. clavatis, apice incrassatis, rotundatis v. conicis, basi rotundatis v. attenuatis, leniter constrictis, 29–48 × 15-21, brunneis, pedicello vario, plerumque sporam æquante fultis.

Hab. in foliis Panici virgati in America boreali. — Adhuc cum *Puccinia emaculata* conjuncta species, sed soris semper epiphyllis ac uredosporis majoribus magis echinulatis diversa.

232. **Puccinia subdiorchidioides** P. Henn. Hedw. 1896, p. 244. — Soris 1249
uredosporiferis amphigenis, striiformibus, epidermide inflata, pallida velatis, ochraceis; uredosporis subglobosis vel ellipsoideis, brunneis vel fuscidulis, 18–23 × 15–21, episporio levi brunneo, tenui; soris teleutosporiferis plerumque hypophyllis interdum epiphyllis, striiformibus subconfluentibusque, atris; teleutosporis oblongis vel clavatis, brunneo-fuscidulis, 30–38 × 15–18, levibus, apice obtuso rotundato, subcrenato vel apiculato subpapillatoque, plerumque

oblique longitudinaliter septatis vel continuis vel horizontaliter septatis plus minus constrictis et loculis subglobosis vel subellipsoideis, pedicello brevi vel plus minus elongato, subhyalino.

Hab. in foliis Panici Cruris-galli pr. Buenos Ayres Argentinæ (Bettfreund). — *P. abnormi* P. Henn. affinis.

233. **Puccinia esclavensis** Diet. et Holw. Bot. Gaz. 1897, p. 29. — 1250
Soris amphigenis, plerumque epiphyllis, minutis v. mediocribus, globosis v. linearibus, in caulibus sæpe confluentibus; soris uredosporiferis cinnamomeis; uredosporis ellipticis, ovatis v. globosis, 30–43 × 24–33, luteo-fuscis v. castaneis, dense minute verrucosis, poris germinationis 4 æquatorialibus instructis; soris teleutosporiferis atro-fuscis, pulvinatis, nudis; teleutosporis ellipticis, raro obovatis, haud v. leniter constrictis, utrinque rotundatis, apice late incrassatis, 32–41 × 23–28, levibus, obscure castaneis; pedicello usque ad 160 μ. longo, hyalino.

Hab. in foliis culmisque vivis Panici bulbosi, Esclava pr. urbem Mexico (Holway).

234. **Puccinia Setariæ** Diet. et Holw. Bot. Gaz. 1897, p. 28. — Soris 1251
plerumque epiphyllis, ellipticis v. sublinearibus; soris uredosporiferis cinnamomeis, nudis; uredosporis ellipticis v. subglobosis, interdum angularibus, 28-38 × 22-29, episporio dense verrucoso, crasso, poris germinationis 6–8, sordide luteo-fuscis; soris teleutosporiferis pulvinatis, atris; teleutosporis ellipticis v. obovatis, raro fusiformibus, haud vel rarissime constrictis, utrinque rotundatis, raro apice conicis, 35–48 × 24–33, episporio levi, castaneo, apice papillato v. late incrassato (7 ½–13 μ.); pedicello crasso, firmo, usque ad 100 μ. longo, hyalino v. pallide fusco.

Hab. in foliis vivis Setariæ imberbis pr. urbem Mexico (Holway).

235. **Puccinia atra** Diet. et Holw. Bot. Gaz. 1897, p. 29. — Soris 1252
plerumque hypophyllis; soris uredosporiferis plerumque linearibus, usque ad 5 mm. longis, nudis, pulverulentis, cinnamomeis; uredosporis ellipticis v. ovatis, 27-35 × 21-25, dense minute verrucosis, fuscis; soris teleutosporiferis punctiformibus v. linearibus, sparsis v. conglobatis, nudis, atris; teleutosporis ellipticis, utrinque rotundatis, vix constrictis, levibus, castaneis, apice incrassatis (ca. 5 μ.), 31-38 × 21-26; pedicello firmo, usque ad 85 μ. longo, hyalino, sæpe superne fuscidulo.

Hab. in foliis vivis Setariæ Grisebachii pr. urbem Mexico, (Holway). — A *P. Setariæ* Diet. et Holw. differt sporis minoribus.

236. **Puccinia Cryptandri** Ell. et Barth. Erythea 1897, p. 47. — Epi- 1253
phylla; soris uredosporiferis linearibus, 1-10 mm. longis, angustis, epidermide longitudinaliter fissa limitatis, dilute brunneis; uredosporis globosis, 20-24 μ. diam. vel ellipticis, 25-30 × 20-23, luteolo-brunneis, subtiliter aculeatis; soris teleutosporiferis ut uredosporiferi, sed brevioribus; teleutosporis oblongo-ellipticis, luteo-brunneis, ad septum constrictis, 35-45 × 20-23; episporio levi, apice vix incrassato; pedicello sporam æquante v. eam superante.

Hab. in foliis vivis Sporoboli cryptandri, Rooks County, Kansas Amer. bor. (Bartholomew). — Differt a *Puccinia Sporoboli* Arth. soris longioribus et obscurioribus.

237. **Puccinia Sydowiana** Diet. Hedw. 1897, p. 299. — Soris teleu- 1254
tosporiferis amphigenis, ellipticis v. oblongis, in vaginis plus minusve linearibus, pulvinatis, atris; teleutosporis oblongis, ellipticis v. clavatis, utrinque rotundatis, rarius basi attenuatis, medio leniter constrictis, episporio levi, castaneo, apice paullo v. non incrassato instructis, 38-55 × 18-30, pedicello usque 100 μ. longo, firmo, flavescenti suffultis.

Hab. in foliis vivis Sporoboli asperi in Kansas Amer. bor. (Bartholomew). — Differt a *Puccinia Sporoboli* Arth. sporis basi haud angustatis et episporio apice non v. vix incrassato. *Puccinia Sydowiana* Zopf, nec Diet., in Sydow, Mycoth. marchica n. 40 et Sacc. Syll. XI, p. 204 ad *Pucciniam Glechomatis* DC. ducenda est.

238. **Puccinia Arundinariæ** Schwein. Syn. Fung. Car. n. 487; Lagh. 1255
Ured. herb. Fries. 1895, pag. 48. — Uredosporis (paucis visis) globosis, 30 μ. diam., membrana luteola, aculeata; soris teleutosporiferis hypophyllis, parvis, punctiformibus, sparsis, brunneis, epidermide rupta cinctis; teleutosporis plerumque oblongis, medio non constrictis, apice rotundatis, basi attenuatis, 55-65 × 17-25, membrana crassa, fusca, levi, ad apicem sporæ parum incrassata; pedicello longo, 90 μ., persistenti, achroo.

Hab. in foliis vivis Arundinariæ macrospermæ in Amer. bor. (Lenormand). Non *P. Phragmitis* (Schum.) Körn., cfr. Sacc. Syll. VII, p. 630.

239. **Puccinia aristidicola** P. Henn. Hedw. 1896, p. 243. — Soris 1256
foliicolis oblongis vel striiformibus, atris, epidermide rupta cinctis; uredosporis subglobosis vel late ellipsoideis, brunneis, levibus, 24-30 × 22-25, episporio 4,6 μ. crasso, levi; teleutosporis intermixtis late ellipsoideis, oblongis vel subclavatis, atrobrunneis vel castaneis utrinque rotundatis apice incrassatis, medio leniter constrictis, 28-

40 × 18-28; episporio atrocastaneo, levi, 4–6 μ. crasso; pedicello usque ad 120 μ. longo, 6-8 μ. crasso, subhyalino, apice brunneolo.

Hab. in foliis Aristidæ spec. pr. Cordoba Argentinæ (Galander).

240. **Puccinia pygmæa** Eriks. Bot. Centralbl. 1895, Bd. 64, p. 381. 1257
— Soris uredosporiferis minutis, oblongis, lineariter ordinatis, interdum confluentibus, aurantiacis, cum paraphysibus 48–80 × 11–16, apice globoso-inflatis; uredosporis globosis, aculeatis, 17-28 μ. diam.; soris teleutosporiferis minutis, oblongis, linearibus, tectis, atrofuscis, hypophyllis; teleutosporis clavatis, apice explanatis v. lateraliter apiculatis, medio vix constrictis, 35–42 × 11–14.

Hab. in foliis vivis Calamagrostidis epigeii in Suecia.

241. **Puccinia amphigena** Diet. Hedw. 1895, p. 291. — Soris uredo- 1258
sporiferis minutis, ferrugineis, aparaphysatis; uredosporis globosis, 21 μ. diam. v. ovoideis, 21–25 × 19–24, pallide brunneis, echinatis; soris teleutosporiferis amphigenis, plus minus lirellæformibus, pulvinatis, solidis, atris; teleutosporis variis, breve clavatis usque longe fusiformibus, basi in stipitem acutatis, vix constrictis, 33-60 × 13-22, levibus, intense luteo-brunneis; episporio apice modice v. valde incrassato; pedicello sporam subæquante, interdum breviore v. longiore, brunneolo, firmo.

Hab. in foliis vaginisque Calamagrostidis canadensis et longifoliæ, Chicago et Kansas Amer. bor. (Arthur, Bartholomew).

242. **Puccinia Calamagrostidis** Syd. Uredineen n. 662, Mycotheca Mar- 1259
chica n. 3517 et 3518. — Æcidiis hypophyllis, in maculis orbicularibus ellipticis v. irregularibus sine ordine aggregatis, in petiolis sæpius elongatis; pseudoperidiis cupulatis, margine crenatis; æcidiosporis subglobosis v. oblongo-globosis rarius polygoniis, flavis, 20-28 μ. diam.; uredosporis in soros striæformes flavo-brunneos congestis, subglobosis v. ovoideo-globosis, levibus, dilute flavis, 24-30 μ. diam.; teleutosporis in soros striæformes epiphyllos epidermide plumbea tectis, tandem rima angusta apertos congestis, cylindraceis, 50-58 × 15-18, medio vix v. non constrictis, dilute flavo-brunneis, loculo superiore apice applanato, leniter incrassato dentibusque duobus v. pluribus erectis v. curvatis concoloribus 4-7 μ. longis coronato, loculo inferiore truncato, rarius in pedicellum brevem, deciduum, hyalinum, crassiusculum attenuato.

Hab. æcidiola et æcidia in foliis Ranunculi Linguæ uredosp., et teleutosporæ in foliis Calamagrostidis neglectæ pr. Berolinum Germaniæ.

243. **Puccinia subnitens** Diet. Erythea 1895, p. 81. — Uredosporis 1260
subglobosis brunneis, tenuissime verrucosis, poris germinationis numerosis præditis, 23-24 × 20-22; soris teleutosporiferis nigris, firmis, pulvinatis, sæpe in series longas dispositis confluentibusque; teleutosporis oblongis v. ellipticis, utrinque rotundatis, leniter constrictis, apice valde incrassatis, sæpe conicis, 32-48 × 17-25, levibus, brunneis, pedicello firmo, hyalino, sporam æquante fultis.

Hab. in foliis Aristidæ dispersæ in Mexico (Holway), Distychlidis spicatæ, Montana Amer. bor. et D. thalassicæ pr. Concepcion in Chile (Neger). — Adsunt teleutosporæ simplices bilocularibus immixtæ.

244. **Puccinia sanguinea** Diet. Bull. Cornell Univ. III, n. 1, 1897, 1261
p. 19. — Soris in maculis purpureo-rubris per paginam foliorum inferiorem sparsis insidentibus, minutis vel mediocribus, epidermide valde elevata tectis; uredosporis obovatis v. sphæricis, 28-38 × 22-28, intense brunneis, spinulosis; teleutosporis ellipticis, utrinque rotundatis, ad septum paululum constrictis, 40-47 × 27-33, levibus, castaneis, pedicello longo suffultis.

Hab. in foliis Sorghi vulgaris, Auburn, Alabama Amer. bor.

245. **Puccinia adspersa** Diet. et Holw. Erythea 1895, p. 81. — Soris 1262
uredosporiferis amphigenis, inconspicuis, oblongis, diu epidermide tectis; uredosporis globosis v. ovoideis, 22-26 × 20-22, membrana hyalina tenuiter echinulata præditis, aureis; soris teleutosporiferis punctiformibus, in vaginis foliorum v. sparsis in series longas associatis, nigrescentibus, epidermide tectis; teleutosporis valde irregularibus, utrinque truncatis v. inferne attenuatis, sæpe angulosis, apice leniter incrassatis, ad septum nunc constrictis, nunc non constrictis, 30-50 × 16-20, intense brunneis, pedicello brevi fultis.

Hab. in foliis vaginisque graminis incogniti in California.

246. **Puccinia oahuensis** Ell. et Ev. Bull. Torr. Bot. Club. 1895, 1263
p. 425. — Soris plerumque hypophyllis, erumpentibus, nudis, aurantiacis, pulverulentis, subconfluentibus, epidermide non cinctis; uredosporis obovatis, aurantiacis, dense crasseque echinulatis, 22-30 × 20-22; teleutosporis immixtis, obovato-ellipticis, levibus, luteo-brunneis, leniter constrictis, apice obscurioribus leviterque incrassatis, non distincte papillatis, 27-40 × 15-20.

Hab. in foliis graminis cujusdam, e. g. Holci v. Panici in ins. Sandwicens. (Heller).

247. **Puccinia Solmsii** Henn. in litt. Sic nominanda est *Puccinia*

consimilis P. Henn., Sacc. Syll. XI, p. 196, quum exstet anterior *P. consimilis* Ell. et Ev.

248. **Puccinia Tecomæ** Sacc. et Syd. Sic nominanda est *Puccinia ornata* Harkn., Sacc. Syll. IX, p. 305, quum exstet anterior *P. ornata* Arth. et Holw. Sacc. Syll. VII, p. 723.

249. **Puccinia trimorpha** Neger, Anal. de la Univ. Santiago, 1895, p. 2 extr. est *Puccinia Triptilii* Mont.

250. **Puccinia Polemonii** Störm. Botan. Notiser. 1896, p. 214 verisimiliter est identica cum *P. Polemonii* Diet. et Holw., Sacc., Syll. XI, p. 193.

251. **Puccinia Dietelii** Sacc. et Syd. Ita est dicenda, si satis diversa, *Puccinia Chloridis* Diet. (1892) Syll. XI, p. 200, extante homonyma Spegazz. (1891).

252. **Puccinia Solanacearum** Sacc. et Syd. Ita dicenda *P. Solani* Cke., Syll. VII, p. 718, nec *P. Solani* Schw.

253. **Puccinia Calochorti** Peck — Syll. VII, p. 670. Huc spectat ex auctore ipso (*Erythea* 1894, p. 129) *P. Holwayi* Diet. (Syll XI, p. 196).

LEPTINIA Juel, Bih. K. Sv. Vet.-Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 15 extr. (Etym. *leptos* tenuis). — Teleutosporæ e strato subepidermico cellularum brunnescentium successive enatæ, e cellulis binis inter se oblique connatis compositæ, membrana tenuissima instructæ, poris carentes, pedicellatæ. Germinatio fere *Leptopucciniæ*. Pycnidia, æcidia, uredo ignota.

1. **Leptinia brasiliensis** Juel, l. c. — Maculis fulvescentibus admodum 1264
determinatis circa nervos folioli effusis, supra nigro punctatis (non pycnidiophoris), subtus soros punctiformes, non confluentes, fusconigros gerentibus; teleutosporis 35 × 14, subhyalinis, pedicellis brunnescentibus.

Hab. in foliis plantæ indeterminatæ, Matto Grosso, Buritizinho sub montibus Serra do Itopirapuan in Brasilia (Lindman).

UROPYXIS Schroet. — Syll. VII, p. 735, XI, p. 204.

1. **Uropyxis Daleæ** Diet. et Holw. Bot. Gaz. 1897, p. 27. — Soris 1263
amphigenis, sparsis vel in greges rotundos confluentibus aut punctiformibus aut media magnitudine; soris uredosporiferis cinnamomeis v. sæpe hyalinis, paraphysibus curvatis; uredosporis globosis v. late ellipticis, 22-25 × 20-22, pallide fuscis, subtiliter echinulatis, poris germinationis numerosis prominulis; soris teleuto-

sporiferis atro-fuscis, pulvinatis; teleutosporis leniter constrictis, utrinque rotundatis, 35-47 × 24-28, episporio castaneo, involucro hyalino et verrucoso, 2-2 1/2 μ. crasso, quaque cellula poris germinationis 2 instructa; pedicello hyalino, sporâ duplo breviore, in aqua usque ad 18 μ. crasso.

Hab. in foliis vivis Daleæ spec. duobus locis in Mexico (Holway).

2. **Uropyxis Eysenhardtiæ** Diet. et Holw. Bot. Gaz. 1897, p. 27. — 1266
Maculis luteolis v. nullis; soris uredosporiferis punctiformibus, hypophyllis, sparsis; soris uredosporiferis albicantibus, paraphysibus curvatis atque hyalinis circumscriptis; uredosporis late ellipticis v. globosis, 15-20 × 15-17, pallide brunneis, echinulatis; soris teleutosporiferis atro-fuscis; teleutosporis utrinque rotundatis, leniter constrictis, 38-45 × 25-28, castaneis, involucro tenui, verrucoso, hyalino, quaque cellula poris germinationis 2 instructa; pedicello plerumque globoso, 15-18 μ. diam., hyalino.

Hab. in foliis vivis Eysenhardtiæ orthocarpæ pr. Mexico (Holway).

3. **Uropyxis Nissoliæ** Diet. et Holw. Bot. Gaz. 1897, p. 27. — Ure- 1267
dosporis non visis; soris teleutosporiferis plerumque hypophyllis, sparsis, minutis v. media magnitudine, atro-fuscis, pulverulentis; teleutosporis utrinque rotundatis, leniter constrictis, 32-40 × 25-27; membrana castanea, involucro hyalino, verrucoso, 1-2 μ. crasso, quaque cellula poris germinationis 2 instructa; pedicello hyalino, usque ad 25 μ. longo et 5-6 μ. crasso.

Hab. in foliis Nissoliæ confertifloræ pr. Guadalajara in Mexico (Holway).

DIORCHIDIUM Kalchbr. — Syll. VII, p. 736, IX, p. 314.

1. **Diorchidium australe** Speg. Contr. Fl. Sierra Ventana, 1896, p. 83. 1268
—Soris minutis, matrice incrassatula atque plus minusve deformata densissime insidentibus, atro-cinnamomeis subpulverulentis; teleutosporis e cellulis duabus globosis (20-22 × 18-22) v. ovatis lateraliter junctis, 28-35 × 20-22, obscure fuligineo-cinnamomeis, episporio crassiusculo minutissime densissimeque asperulo-papilloso vestitis, grosse 1-guttulatis efformatis, pedicellis tenuibus elongatis, 20 × 4, hyalinis, apice minute bilobo-incrassatis fultis.

Hab. in ramulis tenellis et inflorescentia Mimosæ Rocæ, Sierra de la Ventana, Argentina.

2. **Diorchidium goyazense** P. Henn. Hedw. 1895, p. 94. — Maculis 1269

nullis v. obsoletis; soris amphigenis, gregariis, subglobosis v. oblongo-pulvinatis, interdum confluentibus, atris, $^1/_2$–1 mm. diam.; teleutosporis transverse ellipsoideis, septatis, septis constrictis, castaneis, 18–24 × 24–30, raro subglobosis continuis, episporio levi, 4–5 μ.; pedicello gracili, hyalino, 40–80 × 4–5.

Hab. in foliis Panici spec. in prov. Goyaz Brasiliæ (Ule).

3. **Diorchidium flaccidum** (Berk. et Br.) Lagh. Ured. Herb. Fries. 1895, p. 80. — *Puccinia flaccida* Berk. et Br. Ceyl. Fg. n. 821; Sacc. Syll. VII, n. 656; Webb. Pec. Ured. p. 178. — Teleutosporis plerumque verticaliter septatis, rarissime horizontaliter, membrana levi, ad apicem sporæ incrassata, stipiteque persistenti donatis, mox germinantibus.

Hab. in foliis Panici in Ceylon et P. Cruris-galli, Rooks Co., Kansas Amer. bor. (Bartholomew).

GYMNOCONIA Lagh. Ured. herb. Fries. 1895, p. 83 (sine diagnosi). Dietel in Engl. Pflanzenfam. Ured. p. 70 c. ic. (Etym. *gymnos* nudus et *conis* pulvis seu sporæ). Spermogonia conica. Æcidia cæomatiformia, pseudoperidio et paraphysibus carentia, ambitu irregulari. Teleutosporæ bicellulares. — Generi *Pucciniæ* affinis.

1. **Gymnoconia Hyptidis** (Curt.) Lagh. l. c.; *Uredo Hyptidis* Curt. Myc. 1270
N. Amer. p. 353. — Æcidiis amphigenis, sparsis v. in maculis orbicularibus purpureis congregatis, parvis, epidermide rupta cinctis; æcidiosporis angulato-ovoideo-rotundatis, 18–30 μ. diam., membrana achroa, grosse reticulato-verrucosa, verrucis facile deciduis; soris uredosporiferis et teleutosporiferis hypophyllis, sparsis v. irregulariter congregatis et confluentibus, rotundatis, pulvinuliformibus, ferrugineis, firmis, 0,5 mm. diam., epidermide non tectis; uredosporis (inter teleutosporas) globosis v. ovoideis, 26–30 μ. diam., membrana subtenui, æquabili crassitudine, pallide ferruginea, aculeata; teleutosporis oblongo-lanceolatis, apice attenuatis v. rarius rotundatis, basi attenuatis, medio paullo constrictis, 50–68 × 20, mox germinantibus, membrana tenui, æquabili crassitudine, pallide luteola, levi; pedicello persistenti, tenui, hyalino, spora paullo longiore.

Hab. in foliis vivis Hyptidis radiatæ in Amer. bor.

2. **Gymnoconia interstitialis** (Schlecht.) Lagh. l. c. p. 84. — Stat. æcidiosp. *Æcidium nitens* Schw., *Cæoma interstitiale* Schlecht.; st. teleutosp. *Puccinia Peckiana,* Syll. VII, p. 699.

Hab. in foliis vivis Ruborum in Amer. bor., Suecia, Rossia, Germania.

PUCCINIOSIRA Lagerh. — Syll. XI, p. 205.

1. **Pucciniosira Brickelliæ** Diet. et Holw. Bot. Gaz. 1897, p. 34. — 1271
Caulicola, irregularis; pseudoperidiis breviter cylindraceis, penitus immersis, margine irregulariter denticulato, cellulis verrucosis, facile secedentibus, flavo-albis; teleutosporis bicellularibus, catenulatis, cellulis brevibus sterilibus sejunctis, ellipticis, 28-35 × 18-24, primo haud constrictis, denique uniseptatis; membrana hyalina, levi.

Hab. in culmis petiolisque Brickelliæ spec. pr. urbem Mexico (Holway).

SCHIZOSPORA P. Diet. Ber. Deutsch. Bot. Ges. 1895, p. 334 (Etym. *schizo* findo et spora). — Affinis *Pucciniosiræ*, sed teleutosporæ non catenulatæ.

1. **Schizospora Mitragynes** Diet. l. c. tab. XXVI, fig. 15. — Soris 1272
in maculis epiphyllis rotundis luteis circiter 1 cm. diam. insidentibus, penitus immersis, spermogoniis cinctis æcidia simulantibus; spermogoniis longis, lageniformibus; teleutosporis pseudoperidiis cinctis, bicellularibus, mox in maturitate secedentibus, non catenulatis, sed solitariis ex hymenii basi oriundis, non pedicellatis, utrinque attenuatis, 45-60 × 20-22, membrana hyalina tenuiter verrucosa tectis, loculis rotundato-conicis; pseudoperidio anguste aperto, e cellulis facile secedentibus, intus verrucosis, basi extusque levibus composito.

Hab. in foliis Mitragynes macrophyllæ, Sierra Leone Africæ.

Sect. 3. Phragmosporæ.

PHRAGMOPYXIS Diet. in Engler und Prantl, Natürl. Pflanzenfam. p. 70 (Etym. a *phragma*, septum et *pyxis*). — Uredosporæ singulæ, ad apices hypharum evolutæ; teleutosporæ tricellulares, sub exosporio tenui membrana hyalina in aqua valde intumescente præditæ, instructis; paraphyses introrsum curvatæ.

1. **Phragmopyxis deglubens** (B. et C.) Diet., *Phragmidium? deglubens* 1273
De Toni in Syll. VII, p. 749.

Hab. in foliis plantæ ignotæ, Texas Amer. bor.

ROSTRUPIA Speg. — Syll. IX, p. 316, XI, p. 208.

1. **Rostrupia prælonga** Speg. Contr. Fl. Sierra Ventana 1896, p. 83. — 1274
Acervulis hypophyllis, maculis nullis, innato-erumpentibus minutis,

0,5-1 mm. diam., solitariis v. aggregato-confluentibus, fulvescenti-cinereis, compactis; teleutosporis linearibus, rectis v. arcuatis, longissimis, 200-250 × 18-20, 8-16-articulatis, ad septa constrictulis, cellulis inferis angustioribus longioribusque (25-40 × 10-15), superioribus subisodiametricis subconicis, supremis e globoso ovatis obtusis v. apiculatis, aparaphysatis, pallide fulvis, episporio tenui levissimo, endoplasmate hyalino granuloso, stipite indistincto.

Hab. in foliis ramulisque Pavoniæ polymorphæ, Sierra de la Ventana, Argentina.

COLEOSPORIUM Lév. — Syll. VII, p. 751, IX, p. 317, XI, p. 208.

1. **Coleosporium Viguieræ** Diet. et Holw. Bot. Gaz. 1897, p. 34. — 1275
Soris uredosporiferis aurantiacis, minutis, sparsis, hypophyllis, maculas irregulares flavas efficientibus; uredosporis catenulatis, ellipticis v. globosis, 19-25 × 15-20, episporio hyalino, cylindraceo-verrucoso; soris teleutosporiferis uredosporiferis similibus, ferrugineis, ceraceis; teleutosporis cylindraceis, ca. 125 × 14-22, contentu aurantiaco.

Hab. in foliis vivis Viguieræ helianthoidis pr. Tula in Mexico (Holway).

2. **Coleosporium Elephantopodis** (Schw.) Thüm. Myc. Univ.; Lagerheim, Ured. Herb. Fries p. 99, *Uredo Elephantopodis* Schw. Syn. Carol. p. 70; Lagerheim, Ur. var. Pl. p. 121. — Soris teleutosporiferis minutis punctiformibus; teleutosporis obovatis v. cylindraceo-claviformibus, 50-84 × 22-40, quadrilocularibus, septis rarius horizontalibus, sæpius septo mediano horizontali, aliis obliquis vel cruciatim dispositis. 1276

Hab. in foliis Elephantopodis caroliniani in N. Carolina et S. Carolina Amer. bor. (Curtis).

3. **Coleosporium Xanthoxyli** Diet. et Syd. Hedw. 1498, p. 217. — 12
Soris uredosporiferis uredosporisque ignotis; soris teleutosporiferis hypophyllis, sparsis, minutis, usque 200 μ. crassis, gelatinosis; teleutosporis clavatis, 25-32 μ. latis, primum simplicibus deinde plurilocularibus.

Hab. in foliis Xanthoxyli piperiti, Tokyo Japoniæ (M. Shirai).

4. **Coleosporium Bletiæ** Diet. Hedw. 1898, p. 216. — Soris mediocribus v. minutis, sparsis, hypophyllis; uredosporis ellipticis, circiter 25 × 20, verrucosis; teleutosporis clavatis, quadrilocularibus, usque 150 μ. longis, 15-25 μ. latis. 1

Hab. in foliis Bletiæ hyacinthinæ (Orchidaceæ) in horto botanico Tokyo Japoniæ (M. Miyoshi). — Primum *Coleosporium* in planta monocotyledonea observatum.

PUCCINIASTRUM — Syll. VII, p. 762, IX, 318.

1. **Pucciniastrum Tiliæ** Miyabe, Bot. Mag. Tokyo XI, 1897, p. 47, tab. IV, fig. 12-20. — Soris uredosporiferis hypophyllis, minutis, sparsis, dilute aurantiacis; pseudoperidiis persistentibus, subsphæricis, apice apertis; uredosporis subglobosis v. ovatis, sæpe oblongis, 19–26 × 12-15, plerumque 22 × 15, echinulatis, flavis; soris teleutosporiferis hypophyllis, minutis, rubro-brunneis; teleutosporis intercellularibus, 20–38 μ. longis, vario modo in sporas minores divisis, contentu aurantiaco, sporis minoribus sphæricis, 4-6 ρ. diam. 1279

Hab. in foliis Tiliæ cordatæ var. japonicæ et Miquelianæ in Japonia (Miyabe, Hiratsuka).

Sect. 4. Dictyosporæ

RAVENELIA Berk. — Syll. VII, p. 770, IX, p. 318, XI, p. 210. —

1. **Ravenelia Cohniana** P. Henn. Hedw. 1896, p. 246. — Soris uredosporiferis hypophyllis vel ramicolis sparsis, oblongis vel rotundatis, primo epidermide tectis, dein ochraceis; uredosporis oblongis vel ellipsoideis, levibus, flavis vel brunneis, 12-17 × 10-14; soris teleutosporiferis hypophyllis, sparsis, minutis, punctiformibus, atris, epidermide fissa cinctis; capitulis subglobosis vel subhemisphæricis, brunneis, 40-50 × 35-40, 5–6-sporis, asperatis, aculeis brunneolis, subsubulatis 4-5 μ. longis, 3 ρ. crassis; sporis subtriangularibus vel oblongis 16-22 × 13-15; cystidiis 5-6 subglobosis vel ellipsoideis 15–17 μ. diametro, hyalinis. 1280

Hab. in foliis Cæsalpiniæ spec. Rio de Janeiro Brasiliæ (Ule).

2. **Ravenelia opaca** (Seym. et Earle) Diet. *Ravenelia indica* Berk. f. *opaca* Seym. et Earle in Economic. Fungi n. 203, Hedw. 1895, p. 291. — Soris majusculis, 2 mm. v. pluribus, piceis, in pagina foliorum superiore subepidermicis; capitulis hemisphærico-convexis, levibus, atro-brunneis, opacis, 85–120 ρ. diam., transverse 5–6 sporis; sporis unicellularibus, cuneatis, apice 8-10 μ. incrassatis et obscure tinctis, circiter 22 μ. latis; cystidiis hemisphæricis; pedicello composito, capituli latitudinem non superante, haud firmo. 1281

Hab. in foliis petiolisque Gleditschiæ Triacanthi, Clear Creek, Union Co, Am. bor. (Earle).

3. **Ravenelia Mimosæ-sensitivæ** P. Henn. Hedw. 1896, p. 246. — 1282
Soris uredosporiferis amphigenis, sparsis vel gregariis dein confluentibus explanatisque ochraceis; uredosporis subglobosis, ellipsoideis vel ovoideis flavo-brunneis, dense aculeatis, 15-21 × 14-18, paraphysibus clavatis, subhyalinis, 25-40 × 8-10; soris teleutosporiferis intermixtis, irregularibus atrorufis, capitulis gregariis 70-85 μ. diametro subglobosis asperatis, aculeis subsubulatis obtusis, hyalino-brunneolis, 5-6 μ. longis, ca. 3 μ. crassis; cystidiis hyalinis, subglobosis, ca. 15-18 μ. diametro; sporis (ca. 20, 8 ad marginem) subcuneatis vel pentagonis, vertice incrassatis, brunneis vel subcinnamomeis, 20-30 μ. diametro; pedicellis haud conspicuis.

Hab. in foliis Mimosæ sensitivæ, Tucuman Argentinæ (Lorentz).

4 **Ravenelia australis** Diet. et Neg. Engl. Jahrb. 1897, p. 161. — 1283
Soris amphigenis, minutis, fuscis, sub epidermide erumpentibus, paraphysibus intus curvatis et utriculiformibus circumdatis; uredosporis ellipticis v. obovatis, 23-37 × 15-22, dilute fuscis, echinulatis, poris 4 æquatorialibus præditis; capitulis teleutosporarum hemisphæricis, e sporis simplicibus unicellularibus numerosis (in omni directione 9-10) compositis, 70-125 μ. latis, levibus, castaneis; sporis ca. 12-15 μ. latis, apice incrassatis; hyphis pedicellum constituentibus haud conjunctis; cellulis cystoideis numerosis, hemisphæricis, in aqua facillime diffluentibus.

Hab. in foliis et petiolis Acaciæ Caveniæ pr. Concepcion in Chile (Neger).

5. **Ravenelia expansa** Diet. et Holw. Bot. Gaz. 1897, p. 35. — Ma- 1284
culis luteis, magnis; soris amphigenis, sub epidermide erumpentibus; soris uredosporiferis minutis, ochraceis; paraphysibus numerosis, fuscis, utriculiformibus; uredosporis ellipticis v. globosis, 17-20 × 15-17, luteo-fuscis, breviter echinulatis; soris teleutosporiferis irregularibus, magnis, atro-fuscis; capitulis hemisphæricis, 65-95 μ. diam., levibus, castaneis, transverse 5-6-sporis; teleutosporis cuneiformibus, unicellularibus, 14-18 μ. latis, apice valde incrassatis (ca. 7 μ.); cystidiis piriformibus.

Hab. in foliis Acaciæ Tequilanæ pr. Guadalajara in Mexico (Holway).

6. **Ravenelia Acaciæ-Farnesianæ** P. Henn. (sub *R. Mimosæ* P. Henn.) 1285
Hedw. 1895, p. 95. — Æcidiis in ramulis junioribus gregariis;

pseudoperidiis semiimmersis, pustulatis, pallide brunneis, dein erumpentibus, subcupulatis, contextu parenchymatico e cellulis tabularibus, polygonis, granulosis, flavis; æcidiosporis subglobosis v. ellipsoideis, hyalino-flavescentibus, 18–23 × 14–18, episporio levi, 3–4 μ. crasso; soris uredosporiferis ramicolis; uredosporis subglobosis v. irregulariter ellipsoideis, hyalinis, verrucosis, 10-18 × 10-15; soris teleutosporiferis intermixtis, atro-brunneis, epidermide rupta cinctis; capitulis subglobosis, levibus, castaneo-brunneis, e circiter 20 sporis compositis, 60–80 μ. diam.; teleutosporis oblique cuneatis, plerumque triangularibus, continuis, levibus, brunneis, 18–24 × 16–22, episporio 3-4 μ. crasso; pedicello capituli polyhyphoideo, hyalino, ca. 22–26 μ. crasso; cellulis cystoideis appendicularibus, numerosis, subglobosis v. ovoideis, hyalinis.

Hab. in ramis junioribus petiolisque Acaciæ Farnesianæ (non Mimosæ) in prov. Goyaz Brasiliæ (Ule). — *Ravenelia Hieronymi* Speg. affinis, sed teleutosporis simplicibus diversa.

7. **Ravenelia goyazensis** P. Henn. Hedw. 1895, p. 96. — Soris te- 1286
leutosporiferis hypophyllis, solitariis, hemisphæricis, epidermide rupta cinctis, atro-sanguineis v. atro-brunneis, granulosis; capitulis globosis, castaneis, 10-14 (?) -sporis, 70-80 μ. diam., echinatis, pedicellatis; teleutosporis plerumque penta-vel hexagonis, 22–25 × 18–23, continuis, 2–4-aculeatis, aculeis simplicibus hyalinis v. brunneolis, 5–6 × 2–2½; pedicello polyhyphoideo ca. 18 μ. longo, 10–12 μ. crasso, hyalino; cellulis cystoideis appendicularibus non conspicuis.

Hab. in foliis Andiræ Pisonis in prov. Goyaz Brasiliæ (Ule).

8. **Ravenelia Dieteliana** P. Henn. Hedw. 1895, p. 96. — Maculis 1287
nullis v. obsoletis; soris uredosporiferis amphigenis, sparsis v. subgregariis, ochraceis, pustulatis, dein epidermide rupta velatis; uredosporis oblongis v. subglobosis, flavis, aculeatis, 15-24 × 15-18, paraphysibus clavatis, capitulis aurantio-brunneis, stipitibus hyalinis usque ad 45 μ. longis, 15 μ. crassis; soris teleutosporiferis dense gregariis, sæpe confluentibus, amphigenis, intermixtis, pulvinatis, rotundatis, epidermide rupta cinctis, pulverulentis, atro-brunneis, ca 1 mm. diam.; capitulis hemisphæricis v. subglobosis, levibus, 6-sporis, subcastaneis, epedicellatis, 32–45 μ. diam.; teleutosporis simplicibus, subcuneatis, obtuse triangularibus, levibus, 15-22 × 12-16, episporio 4-5 μ. crasso; 6 cellulis appendicularibus, globosis, hyalinis, epedicellatis, 12-22 μ. diam.

Hab. in foliis Calliandræ macrocephalæ in prov. Goyaz

Brasiliæ (Ule). — Valde differt a ceteris speciebus, in *Calliandra* observatis.

9. **Ravenelia japonica** Diet. et Syd. Hedw. 1898, p. 216. — Soris 1288
amphigenis sub cuticula foliorum nascentibus, minutis v. mediocribus, sparsis v. circulariter dispositis, nudis; uredosporis obovatis v. ellipticis, 17-23 × 15-18, episporio flavescenti echinulato præditis; capitulis teleutosporarum applanatis, circularibus, 80-125 μ. latis, castaneis, levibus, sporis 6-8 in omni directione compositis; teleutosporis unicellularibus, 15-22 μ. latis; cellulis cystoideis pulvinatis, pedicello caduco.

Hab. in foliis Albizziæ Julibrissin, Komaba-Tokyo Japoniæ (M. Shirai).

10. **Ravenelia Munduleæ** P. Henn. Ann. del R. Istit. di Roma VI, 1289
Fasc. 2, p. 86. — Soris uredo-teleutosporiferis intermixtis amphigenis, sparsis v. aggregatis, subrotundatis, atris deinde pulverulentis, epidermide rupta velatis; uredosporis ovoideis v. oblongis minute asperatis, flavis v. subfuscidulis, 24–28 × 16–22; capitulis subglobosis v. subhemisphæricis castaneis, c. e 20 cellulis compositis, 100–120 × 90–110, breve aculeatis, aculeis simplicibus obtusis, brunneolis, 6-8 × 4-5; pedicello polyhyphoideo hyalino, c. 35–40 × 15–20; cystidiis subglobosis, hyalinis, c. 14–20 μ., sæpe pedicellis non conspicuis; sporis penta-hexagonis v. obtuse triangularibus, 20–26 μ., episporio incrassato, castaneo.

Hab. in foliis Munduleæ suberosæ in Somalia.

11. **Ravenelia levis** Diet. et Holw. Bot. Gaz. 1897, p. 35. — Soris 1290
in maculis flavis, ca. 1 mm. diam. insidentibus, sparsis v. orbiculariter confluentibus, amphigenis; soris uredosporiferis castaneis; uredosporis globosis v. ovatis, 21-26 × 20-23, obscure brunneis breviter echinulatis, poris germinationis 12–15; paraphysibus numerosis, fuscis, clavatis, firmis; soris teleutosporiferis atris; capitulis irregulariter rotundatis, hemisphæricis, 90–125 υ. diam., opacis, fuscis, levibus, plerumque 5-6-sporis in omni directione; sporis transverse septatis, 20–26; cystidiis applanatis, in pagina inferiore capitulorum; pedicellis compositis.

Hab. in foliis vivis Indigoferæ spec. duobus locis in Mexico (Holway).

12. **Ravenelia Schrœteriana** P. Henn. Hedw. 1896, p. 245. — Soris 1291
uredosporiferis hypophyllis sparsis, flavis vel ochraceis epidermide rupta cinctis; uredosporis subglobosis vel late ellipsoideis, intus interdum punctulatis, brunneis, 18-25 × 16-22, paraphysibus cla-

vatis vel capituliformibus, parte inferiore subhyalinis, parte superiore rufo-brunneis, 30–45 × 15–21; soris teleutosporiferis hypophyllis, sparsis, rufo-brunneis, capitulis aggregatis, 90–120 μ. diam., subglobosis e 20 et pluribus cellulis compositis, brunneis vel castaneis, asperatis, aculeis obtusis, brunneolis, 3–4 × 2–3; cystidiis subglobosis vel late ellipsoideis, hyalinis; sporis subcuboideis pentagonis vel hexagonis, ca. 20–30 × 18–28.

Hab. in foliis Indigoferæ spec. in Argentina (Hieronymus, Lorentz).

13. **Ravenelia arizonica** Ell. et Ev. Bull. Torr. Club. 1895, p. 363. — 1292
Amphigena; soris erumpentibus, mox nudis, minutis, nigris; capitulis non compactis, orbicularibus, 75–85 μ. diam., castaneo-brunneis, hemisphæricis, echinatis, in diametro 7-9-sporis, e circiter 18-25 v. pluribus sporis compositis; teleutosporis 18-22 × 7-8; cystidiis ovato-globosis, tumidis; stipite brevi, recto, ex hyphis paucis composito; uredosporis obovatis v. ellipticis, asperis, 23-30 × 15-18, pallide luteolo- brunneis.

Hab. in foliis vivis Prosopidis julifloræ, Arizona Amer. bor.

14. **Ravenelia Urbaniana** P. Henn. Hedw. 1897, p. 215. — Maculis 1293
fuscis; soris teleutosporiferis amphigenis, plerumque orbiculariter dispositis, oblongis vel subrotundatis, acutangulis, diutius tectis, dein epidermide rupta cinerea velatis, 0,3-0,5 mm. diametro, cinnamomeis; capitulis hemisphæricis vel subglobosis, 8-sporis, 50–80 μ., interdum usque ad 100 μ. diametro, castaneis, levibus; sporis triangularibus vel pentagonis, 30–35 × 15–24; cystidiis (8) ovoideis, hyalinis, 12-14 × 10-12.

Hab. in foliis coriaceis Cassiæ spec. pr. Goyaz Brasiliæ (Glaziou).

15. **Ravenelia Stuhlmanni** P. Henn. Fungi camerun. I, in Engl. 1294
Jahrb. XXII, 1895, p. 82. — Soris uredosporiferis amphigenis, plerumque epiphyllis, sparsis v. concentrice dispositis, diutius tectis, dein epidermide velata cinctis, rotundatis v. oblongis, minutis, ochraceis, aparaphysatis; uredosporis oblongis, ovoideis vel subglobosis, sæpe angulatis, flavis, dein brunneo-fuscis, minute aculeato-verrucosis, 15-24 × 11-14; soris teleutosporiferis plerumque epiphyllis, sparsis v. concentrice dispositis interdum intermixtis, diutius tectis, dein epidermide velata cinctis, irregularibus subacutangulis, brunneis, dein atris, cellulis epidermidis plerumque 5-6 angulatis, flavo-brunneis, 8-15 × 6-13; capitulis subglobosis, 60-110 μ.

diam., subechinatis, flavis, dein brunneis v. subatris, e 24-30 sporis, 5-6-angulatis compositis, aculeis vix protuberantibus, hyalinis, 4-8 ≈ 3-4, interdum elongatis; sporis subcuneatis v. subhemisphæricis, 24-30 ≈ 12-18, episporio apice valde incrassato, sæpe 5-8 μ. crasso, et deinde atro; pedicello polyhyphoideo, hyalino, ca. 30 μ. longo, 12-15 μ. crasso, cellulis appendicularibus multis, subglobosis v. ovoideis, hyalinis, 14–15 μ. diam.

Hab. ad folia Cassiæ Petersianæ, Usambara, Africa (Stuhlmann).

16. **Ravenelia Uleana** P. Henn. Hedw. 1895, p. 96. — Maculis amphigenis, suborbicularibus v. confluentibus, violaceo-brunneis, ca. $^1/_2$-1 cm. diam.; soris uredosporiferis sparsis intermixtis, amphigenis, rotundato-oblongis, pustulatis, dein epidermide rupta cinctis, subochraceis; uredosporis subglobosis, ellipsoideis, flavis, granulosis, pedicellatis 18–26 ≈ 15–24, episporio verrucoso; soris teleutosporiferis gregariis, orbiculariter dispositis, interdum confluentibus, applanato-pulvinatis, epidermide rupta velatis, pulverulentis atro-violaceo-brunneis, ca. $^1/_2$-1 mm. diam.; capitulis subglobosis v. subhemisphæricis, castaneo-brunneis, levibus, ca. 60-80 μ. latis, 45-75 μ. altis, e 12–25 sporis compositis, pedicello polyhyphoideo, hyalino, usque ad 75 μ. longo, 12-15 μ. crasso; teleutosporis continuis, subcuneatis, obtuse triangularibus v. 4-angulatis, brunneis, 22–34 ≈ 15-23, guttulatis, levibus, brunneis, inferne cellulis appendicularibus cystoideis globosis v. ovoideis, hyalinis, pedicellatis, 15-26 ≈ 13-23. 1295

Hab. in foliis Cassiæ spec. in prov. Goyaz Brasiliæ. (Ule).

17. **Ravenelia Brongniartiæ** Diet. et Holw. Bot. Gaz. 1897, p. 35. — Soris uredosporiferis maculis magnis circiter 5 mm. diam. luteis insidentibus, solitariis v. confluentibus, amphigenis, cinnamomeis; uredosporis ovatis v. globosis, 23–30 ≈ 18–25, breviter echinulatis, poris germinationis numerosis; paraphysibus nullis; soris teleutosporiferis maculis nullis insidentibus, atris; capitulis hemisphæricis, 85-115 μ. diam., transverse 5-6-sporis, obscure castaneis, superne dense longeque verrucosis; sporis capitulorum interioribus bicellularibus, 16-21 μ.; cystidiis conjunctis, in pedicellum compositum attenuatis. 1296

Hab. in foliis Brongniartiæ spec., Cuernavaca, Mexico (Holway).

UREDINEÆ INFERIORES.

ÆCIDIUM Pers. — Syll. VII, p. 774, IX, p. 319, XI, p. 213.

1. **Ægidium Negerianum** Diet. Engl. Jahrb. 1897, p. 161. — Ægidiis 1297
mycelio perenni generatis, per totam superficiem inferiorem dispersis; pseudoperidiis basi immersis, margine valde caduco, grosse laciniato, albo; æcidiosporis ellipticis v. ovoideis, plerumque angulatis, 22-30 × 20-25, pallide flavis, membrana tenui, minute verruculosa præditis.

Hab. in foliis deformatis Ranunculi pedunculari in valle ad vulcanum Copahue, Chile (Neger).

2. **Ægidium Anonæ** P. Henn. Hedw. 1895, p. 100. — Semiimmersum, 1298
hypophyllum; ægidiis gregariis, sine ordine dispositis, plerumque paginam inferiorem foliorum dense tegentibus; pseudoperidiis primo punctiformibus, vix elevatis, ochraceis, dein apertis, cupulatis, margine laciniatis, pallide flavis; æcidiosporis subglobosis v. ellipsoideis, acutangulis, hyalino-flavescentibus v. fuscescentibus, 16-21 × 14-18, contextu cellulis oblongis acutangulis ochraceo-pallescentibus.

Hab. in foliis coriaceis Anonæ spec. in prov. Goyaz Brasiliæ (Ule).

3. **Ægidium anonaceicola** P. Henn. Hedw. 1895, p. 101. — Maculis 1299
atrofuscis, epiphyllis, tuberculatis; ægidiis hypophyllis in maculis brunneis sparsis, subrotundatis; pseudoperidiis sparsis v. gregariis, suborbiculariter dispositis, cupuliformibus, pallide flavis v. subfuscescentibus, margine revoluto-sublaciniato, vix $^1/_3$ mm. diam., cellulis contextu quadrangulis v. oblongo-acutangulis, granulatis, hyalinis, 22-25 × 15-20; æcidiosporis subglobosis, acutangulis, levibus, hyalino-flavescentibus, 15-19 × 13-18.

Hab. in foliis vivis Anonacearum sp. in prov. Goyaz Brasiliæ (Ule).

4. **Ægidium Guatteriæ** Diet. Hedw. 1897, p. 34. — Maculis magnis, 1300
nigrescentibus, vesiculoso-inflatis; pseudoperidiis hypophyllis, per tomentum plantæ nutricis erumpentibus, margine irregulariter lacerato; sporis ellipticis v. irregularibus, 20-27 × 15-20, verruculosis.

Hab. in foliis Guatteriæ spec. in provincia Minas Geraës Brasiliæ (Ule).

5. **Ægidium Xylopiæ** P. Henn. Hedw. 1895, p. 100. — Pseudoperidiis 1301

hypophyllis, immersis, dense gregariis, paginam inferiorem foliorum dense tegentibus, pallide ochraceis, diutius tectis punctiformibus, dein subcupulatis, margine laciniato-fimbriato; æcidiosporis subglobosis v. oblongis, hyalino-subflavescentibus, levibus, 14–24 × 13–20.

Hab. in foliis Xylopiæ spec. pr. Catalao Brasiliæ (Ule). — *Æcidio Anonæ* P. Henn. valde affinis.

6. **Æcidium Isatidis** P. Har. Journ. de Bot. 1896, p. 200. — Amphigenum (quamvis potius hypophyllum); maculis fere inconspicuis, pseudoperidiis gregariis in plagulas rotundatas et concentricas, sparsas, raro confluentes dispositis, primum mamilloso-sphæricis, tectis, dein erumpentibus et bene exsertis, margine laceratis et reflexis, flavo-fuscescentibus; contextu cellulis difformibus, 3–6-gonis, obtuse angulatis, crasse tunicatis, radiatis et quasi verruculosis composito; æcidiosporis inter se densissime conjunctis, difformibus, globosis v. obscure rotundato-angulatis, levissimis, melleis, episporio tenuiculo, hyalino, 20-24 μ. crassis. 1302

Hab. ad folia Isatidis tinctoriæ in monte Musinet Sabaudiæ.

7. **Æcidium Jacobsthalii-Henrici** P. Magn. Ber. Deutsch. Bot. Gesellsch. 1897, Bd. IV, p. 275, t. X, f. 1-8. — Æcidiis ramulos foliaque valde deformantibus, turiones breves efformantibus, plerumque per totam foliorum paginam inferiorem sparsis: pseudoperidiis brevibus; æcidiosporis fere ut in *Æcidio magellanico,* 18,1-23,2 × 14,2–18,1. 1303

Hab. in foliis ramulisque vivis Berberidis buxifoliæ in Fuegia et Chile.

8. **Æcidium Hyperici** P. Henn. Pilz. Ostafr. p. 52. — Maculis fuscis; æcidiis hypophyllis; pseudoperidiis solitariis v. aggregatis, semi-immersis, diutius clausis, dein apertis, cupuliformibus, ochraceo-pallescentibus, margine inciso-revoluto; æcidiosporis subglobosis, oblongis, polyhedricis, flavo-brunneis, dein fuscescentibus, granulatis, 17–26 × 14–18 μ. 1304

Hab. in foliis Hyperici lanceolati in Africa trop. (Volkens). — Ab *Æcidio disseminato* bene diversum.

9. **Æcidium Triumfettæ** P. Henn. Hedw. 1896, p. 259. — Maculis rotundatis ca. 5 mm. diametro, fuscobrunneis bullatis, incrassatis; æcidiis sparsis hypophyllis; pseudoperidiis orbiculariter dispositis, cupulatis, ochraceis vel fuscis, contextu cellulis oblongis polyhedricis; æcidiosporis subglobosis, ovoideis vel ellipsoideis, acutangulis, sub- 1305

hyalinis vel flavidulis, 15-20 ≈ 13-16; episporio levi, flavidulo vel fuscidulo.

Hab. in folio Triumfettæ spec. Loreto Argentinæ (Niederlein).

10. **Æcidium malvastricola** P. Henn. Hedw. 1897, p. 216. — Æcidiis amphigenis caulicolisque; pseudoperidiis plerumque aggregatis, pallide flavidis, cylindraceis, ca. $^1/_2$-$^2/_3$ mm. longis, margine incisis; æcidiosporis subglobosis, ellipsoideis vel ovoideis, intus flavidis, 18-25 ≈ 18-22, episporio 4 μ. crasso, punctulato, hyalino; cellulis pseudoperidii oblongis, subrhomboideis, reticulatis, hyalinis, 30-60 ≈ 18-24. 1306

Hab. in foliis vivis Malvastri spicati, Sierra chica de Cordoba Argentinæ (Hieronymus).

11. **Æcidium Gossypii** Ell. et Ev. Erythea 1897, p. 6. — Maculis obscure brunneis, marginem versus rubescentibus, pallide marginatis; pseudoperidiis hypophyllis, erumpentibus, minutis, 200 μ., mox apertis, margine tenui, eroso-dentato, erecto; æcidiosporis globosis v. angulosis, sublevibus, 15-20 μ. diam. 1307

Hab. in foliis Gossypii spec. in California.

12. **Æcidium Elaeagni** Diet. Hedw. 1898, p. 212. — In maculis aureis magnis hypophyllum, cæspitosum; pseudoperidiis tubiformibus dense, gregariis in soros rotundatos vel secundum nervos elongatos congestis margine primum integro, deinde laciniato; æcidiosporis ellipticis vel subglobosis, angulatis, 22-28 ≈ 17-22, densissime verruculosis. 1308

Hab. in foliis Elaeagni pungentis prope Nagasaki Japoniæ (Ds. C. Kluckist). — Species pulcherrima.

13. **Æcidium goyazense** P. Henn. Hedw. 1895, p. 101. — Æcidiis amphigenis caulicolisque, tuberculatis, gregariis, tuberculis pulvinatis, sublignosis, duris, rotundatis v. oblongatis, rugulosis, $^1/_2$-3 cm. diam., brunneo-fuscis; pseudoperidiis cylindraceo-subulatis, corniformibus, pallidis, usque ad 5 mm. longis, vix $^1/_3$ mm. latis, primo apiculatis, dein apice apertis, contextu cellulis oblongis, subrhomboideis, acutangulis plerumque penta-vel hexagonis, hyalino-subfuscescentibus, reticulato-verrucosis, 25-50 ≈ 18-30; æcidiosporis subglobosis, ellipsoideis v. ovoideis, subacutangulis, hyalino-subfuscescentibus, levibus, 21-30 ≈ 20-26; episporio hyalino, levi, 3-4 μ. crasso. 1309

Hab. in foliis caulibusque Loranthi spec. in prov. Goyaz Brasiliæ (Ule).

14. **Æcidium bulbifaciens** Neg. Engl. Jahrb. XXII, p. 356. — Species valde notabilis, in ramis tumores bulbosos, globosos vel irregulares, 3-40 mm. longos efficiens; pseudoperidiis cylindraceis, ca. 0,7 mm. altis, orificiis irregulariter laceratis; sporis ellipticis v. polyhedricis, 30-38 × 23-30, minute verruculosis. 1310

Hab. in ramis Loranthi heterophylli ad orificia fluminum Bahue et Bueno in Chile (Neger).

15. **Æcidium Momordicæ** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 21, extr. — Maculis in utraque foliorum pagina pallidis non marginatis, superne plerumque spermogonia luteo-brunnea, subtus æcidia gerentibus; pseudoperidiis brevibus, margine revoluto, e cellulis striolato-verrucosis circiter 27 μ. latis contextis; sporis pallidis, rotundato-polygoniis, circiter 24 μ. latis, membrana crassiuscula apice verrucosa, basi sublevi instructis. 1311

Hab. in foliis Momordicæ, Matto Grosso, Brasilia (Lindman).

16. **Æcidium Cerei** P. Henn. Hedw. 1896, p. 258. — Æcidiis petalicolis sparsis vel orbicularibus; pseudoperidiis aggregatis, cylindraceis, pallide flavis vel subalbis, primo clausis obtusis dein apertis, margine lacerato-denticulatis; contextu cellulis plerumque irregulariter polyhedricis, flavescentibus, intus granulatis, 30-50 × 10-16; æcidiosporis globosis vel subovoideis vix acutangulis, flavescentibus, 16-22 × 15-20, episporio subhyalino, levi, 4–4 $^1/_2$ μ. crasso. 1312

Hab. in petalis Cerei spec. Sierra chica de Cordoba Argentinæ (Hieronymus).

17. **Æcidium Petersii** B. et C. N. Amer. Fung. n. 580, Lagerheim, Ured. Herb. El. Fries p. 103; Syll. VII, p. 780 (diagnosis incompl.). — Æcidiis hypophyllis, maculis pallidis insidentibus, subcircinatim congregatis, breviter cylindricis, margine irregulariter lacerato, recurvato; æcidiosporis angulato-rotundatis, ca. 16 μ. diam., episporio tenui, achroo, verruculoso. 1313

Hab. in foliis petiolisque Violarum pluribus locis in Amer. bor. (Curtis, Peters etc.).

18. **Æcidium Cerastii** Otth, Bern. Mittheil 1863, p. 89. — Pseudoperidiorum parte emergente mox decidua, parte inferiore parenchymate immersa, bene conspicua; æcidiosporis pallide flavis. 1314

Hab. in foliis Cerastii silvatici, Bremgartenwald, Helvetia. — Comparandum cum *Æc. Cerastii* Wint. posteriore.

19. **Æcidium Vitis** A. L. Smith, Journ. of Bot. 1895, p. 342. — Æcidiis hypophyllis, rarius epiphyllis, pallido-fuscis, in maculis irregularibus dense aggregatis; pseudoperidiis pallidis, rotundatis, 1315

230 μ. diam., margine lacerato; æcidiosporis suboblongis, circa 15–20 μ.

Hab. in foliis Vitis in Africa orient. (Elliot).

20. **Æcidium mexicanum** Diet. et Holw. Bot. Gaz. 1897, p. 36. — Maculis circularibus, 3-6 mm. diam., plerumque luteolo-rubro-marginatis; pseudoperidiis ad marginem macularum, minutis, 0,25-0,30 mm., breviter cylindraceis, luteolo-rubris, margine erecto, albo, subtiliter denticulato; sporis plerumque globoso-polygonalibus v. ellipticis, aurantiacis, 22–31 × 20–24, membrana hyalina, firma, sæpe irregulariter incrassata, subtiliter verrucosa. 1316

Hab. in foliis vivis Cissi spec. pr. urbem Mexico (Holway). — Differt ab *Æcidio Cissi* Wint. sporis multo majoribus.

21. **Æcidium ilicinum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 284. — Maculis amphigenis, superne purpureo-nigris, inferne sordide aurantiacis, indefinitis; æcidiis hypophyllis, in centro macularum solitariis; pseudoperidiis hemisphæricis v. tuberculiformibus initioque clausis, dein laciniatim dehiscentibus ac margine dense denticulatis; æcidiosporis forma irregularibus, globosis, ovatis, ellipticis v. subangulosis, 18-22 μ. longis, episporio plus minusve rugoso v. tuberculato-asperato præditis. 1317

Hab. in foliis vivis Ilicis opacæ, W. Virginia Amer. bor. (Nuttall).

22. **Æcidium Serjaniæ** P. Henn. Hedw. 1896, p. 258. — Maculis flavis vel ochraceis, irregularibus; æcidiis hypophyllis, sparsis; pseudoperidiis orbiculariter dispositis vel sparsis, pallide flavis primo subhemisphæricis, dein apertis, cupulatis, contextu cellulis oblongis polyhedricis intus granulatis, subhyalinis vel flavis; æcidiosporis subglobosis ellipsoideis vel subovoideis, hyalino-flavidulis, 14–17 × 13–15, episporio tenui subflavo. 1818

Hab. in foliis vivis Serjaniæ fultæ, Sierra de Tucuman Argentinæ (Hieronymus, Lorentz).

23. **Æcidium byrsonimaticola** P. Henn. Hedw. 1895, p. 322. — Spermogoniis epiphyllis, gregariis, præcedentibus, castaneis; æcidiis per totam inferiorem folii paginam aggregatis, pulvinato-depressis, sæpe confluentibus, dein apertis, margine inciso-revolutis, griseis; æcidiosporis subglobosis, ovoideis v. ellipsoideis, dense verrucosis, hyalino-fuscidulis, 30 × 40; contextu pseudoperidii cellulis oblongis, polyhedricis, reticulatis, 45–60 × 25-35, flavo-fuscidulis. 1319

Hab. in foliis vivis Byrsonimatis spec. pr. Goyaz Brasiliæ (Ule).

24. **Æcidium Byrsonimatis** P. Henn. Hedw. 1895, p. 101. — Æci- 1320
diis amphigenis caulicolisque, tumoribus crassis plus minusve magnis, ochraceo-fuscis, usque ad 5 cm. diam.; pseudoperidiis gregariis, cylindraceis, pallidis v. subcinereis, usque ad 5 mm. longis, $^1/_2$-1 mm. crassis, primo apicibus subulatis clausis, dein apertis, tandem subcupulatis, laciniatis, contextu cellulis oblongis, acutangulis, subhyalinis, reticulato-verrucosis, usque ad 60 μ. longis, 20-35 μ. latis; æcidiosporis subglobosis, ovoideis v. oblongis acutangulis, hyalino-subfuscescentibus, reticulato-verrucosis, 30-48 × 24-30.

Hab. in foliis caulibusque vivis Byrsonimatis spec. in prov. Goyaz Brasiliæ (Ule).

25. **Æcidium Salaciæ** P. Henn. Hedw. 1895, p. 100. — Æcidiis dense 1321
gregariis, plerumque totum folium occupantibus v. hypophyllis, semiimmersis, pustulato-punctiformibus, flavo-ochraceis, $^1/_2$ mm. diam., diutissime clausis, dein apertis subcupuliformibus, contextu cellulis rotundatis v. oblongis, polyhedricis, hyalino-fuscescentibus; æcidiosporis subglobosis v. ellipsoideis, acutangulis, levibus, hyalino-subflavescentibus, 18-22 × 15-20.

Hab. in foliis coriaceis Salaciæ spec. in prov. Goyaz Brasiliæ (Ule). — *Æcidio Anonæ* P. Henn. et *Æ. Xylopiæ* P. Henn. affine, sed tamen pseudoperidiis et sporis videtur diversa.

26. **Æcidium pulcherrimum** Rav. in Berk. et Curt. N. Amer. Fung. 1322
n. 583; Lagerheim, Ured. Herb. El. Fries p. 104; Syll. VII, p. 785 (diagnosis incompl.). — Æcidiis caulincolis v. petiolicolis v. hypophyllis nervicolis, dense congregatis, cylindricis, margine subrecto; æcidiosporis angulato-globosis, 16-20 μ. diam., membrana tenui, achroa, subtiliter verruculosa.

Hab. in fere omnibus partibus Berchemiæ volubilis in Carolina inf. Amer. bor. (Ravenel).

27. **Æcidium Tissæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 284. — 1323
Sparsum v. aggregatum; pseudoperidiis minutis, breve cylindraceis, margine leniter denticulatis; æcidiosporis subglobosis v. ellipticis, levibus, 14-18 μ. diam., dilute aurantiacis, initio mox marcescentibus.

Hab. in foliis caulibusque Tissæ macrothecæ in California (Mc Clatchie).

28. **Æcidium Eriosematis** P. Henn. Hedw. 1895, p. 103. — Maculis 1324
nullis; pseudoperidiis hypophyllis, in tomento nidulantibus, cupulatis, ochraceis, gregariis v. sparsis; contextu e cellulis oblongis,

acutangulis, flavo-brunneis, 25–35 × 13–18; æcidiosporis oblongis v. subglobosis, acutangulis, hyalinis v. subflavescentibus, levibus, 18-23 × 15-18, episporio levi, hyalino, 4-5 μ. crasso.

Hab. in foliis vivis Eriosematis et Rhynchosiæ spec. duobus locis in Brasilia (Ule).

29. **Æcidium eburneum** Mc Alp. Roy. Soc. Victoria 1894, p. 218. — Ædidiis eburneis, demum brunneolis, aggregatis; pseudoperidiis cupulatis, minutis, margine subtiliter denticulatis; æcidiosporis subglobosis v. ellipticis, griseis, 24-25 μ. diam. vel 25-28 × 19-22. 1325

Hab. in omnibus partibus Bossiæ cinereæ, Victoria et Tasmania Australiæ.

30. **Æcidium immersum** P. Henn. Hedw. 1895, p. 330. — Ædidiis ramulicolis, deformantibus, tuberculis corniformibus, incarnatis; pseudoperidiis immersis, primo subtuberculatis, dein disciformibus, in sicco Mollisiæ cinereæ similibus, subconcavo-applanatis, margine pallido, inciso, obsoleto, $^1/_2$–1 mm. diam.; æcidiosporis subglobosis, ellipsoideis v. ovoideis, acutangulis, subverrucosis, flavo-subfuscescentibus, 21-27 × 18-24. 1326

Hab. in ramulis junioribus Acaciæ abyssinicæ in Erythræa (Schweinfurth).

31. **Æcidium Glycines** P. Henn. Pilz. Ostafr. p. 52. — Maculis fuscescentibus, irregularibus; pseudoperidiis solitariis, sparsis v. gregariis, plerumque hypophyllis, raro epiphyllis, petiolicolis caulicolisque, ochraceis, pulvinatis, dein cupulatis, irregulariter dehiscentibus, margine inciso-revoluto; æcidiosporis subglobosis, acutangulis, aurantio-flavis depallescentibus, intus granulatis, levibus, 22-26 × 20-24; contextu cellulis pseudoperidii polyhedricis, hyalino-flavescentibus. 1327

Hab. in foliis Glycines javanicæ in Africa trop. (Volkens).

32. **Æcidium Desmodii** P. Henn. Hedw. 1896, p. 259. — Maculis flavis vel flavo-brunneis, rotundatis vel irregularibus confluentibusque; æcidiis hypophyllis, sparsis vel confluentibus; pseudoperidiis dense gregariis, subreticulatis, minutis vix elevatis, flavis cupuliformibus, margine integro erecto; contextu cellulis oblongis, polyhedricis, hyalinis, intus granulatis, 15-25 × 13-17; æcidiosporis subglobosis, ellipsoideis vel ovoideis, levibus, hyalino-flavescentibus, 14-24 × 13-18. 1328

Hab. in foliis Desmodii spec. in Brasilia (Ule).

33. **Æcidium Crotalariæ** P. Henn. Pilz. Ostafr. p. 52. — Maculis flavis, rotundatis; æcidiis hypophyllis, sparsis; pseudoperidiis paucis, 1329

5-10, orbiculariter dispositis, diutius clausis, dein apertis, cupuliformibus, usque ad 2 mm. diam., pallidis, margine reflexo, fimbriato, contextu cellulis plerumque hexagonis, granulatis, flavescentibus; æcidiosporis subglobosis, acutangulis, levibus, hyalino-flavescentibus, 20-25 × 18-23.

Hab. in foliis Crotalariæ grandibracteatæ in Africa trop. (Holst).

34. **Æcidium Deutziæ** Diet. Hedw. 1898, p. 212. — Pseudoperidiis 1330
solitariis v. plerumque in acervulos parvos congestis, hypophyllis, minutis, margine albo, irregulariter denticulato caduco præditis; æcidiosporis polyhedricis v. subglobosis, 21-25 × 17-20, minute verrucosis.

Hab. in foliis Deutziæ spec. pr. Yokohama Japoniæ (Dr. C. Kluge-kiss).

35. **Æcidium Glaziovii** P. Henn. Hedw. 1897, p. 216. — Maculis 1331
atrofuscis, rotundatis; æcidiis amphigenis, sparsis vel orbiculariter dispositis; pseudoperidiis primo pulvinatis vel subhemisphæricis, dein longitudinaliter ruptis, flavis; sporis subglobosis, ovoideis vel ellipsoideis, hyalinis, dense verrucosis, 15-24 × 13-20.

Hab. in foliis vivis Myrtaceæ indeterminatæ pr. Rio de Janeiro Brasiliæ (Glaziou).

36. **Æcidium Blasdaleanum** Diet. et Holw. Erythea 1895, p. 77. — 1332
Maculis nullis, rubescentibus v. brunneis; æcidiis in greges variæ magnitudinis congestis, hypophyllis v. fructicolis, inflationes efficientibus; pseudoperidiis brevibus, margine albo lacerato, fugacibus; cellulis peridialibus irregulariter rotundatis, verrucosis, facile secedentibus; æcidiosporis ellipticis, polygonalibus v. globosis, 18-21 × 17-19, verrucosis, membrana hyalina præditis.

Hab. in foliis fructibusque vivis Cratægi rivularis et Amelanchieris alnifoliæ in California (Blasdale).

37. **Æcidium Isnardiæ** Lagh. Ured. herb. Fries. 1895, p. 102. — 1333
Maculis circularibus, purpureo-rubris; æcidiis hypophyllis in maculis subcircinatim ordinatis (spermogoniis in centro circuli æcidiorum), cupulatis, parvis; æcidiosporis angulato-rotundatis, 18 μ. diam., membrana tenui, achroa, subtiliter verruculosa.

Hab. in foliis vivis Isnardiæ in Ohio Amer. bor.

38. **Æcidium Heteromorphæ** A. L. Smith, Journ. of Bot. 1895, p. 342. 1334
— Spermogoniis melleo-flavis; æcidiis in pustulis brunneis longis aggregatis; pseudoperidiis pallidis, rotundatis v. oblongis, 370-500 μ. diam.; æcidiosporis suboblongis, 15-25 μ., pallido-flavis.

Hab. in caulibus et petiolis Heteromorphæ spec. in Africa orient. (Elliot).

39. **Æcidium Scorzonéræ** (Cast. in herb.) Lagh. Ured. herb. Fries. 1895, p. 105. — Æcidiis hypophyllis in maculis purpureis parvis (2-3 mm. diam.) circinatim dispositis, cupulatis, brevibus; æcidiosporis rotundato-globosis, 16 μ. diam., membrana tenui, subtiliter verruculosa. 1335

Hab. in foliis vivis Scorzoneræ angustifoliæ in Gallia (Castagne).

40. **Æcidium Vittadiniæ** Mc Alp. Agr. Gaz. Sydney. 1895, n. 11, Novbr. p. 6, fig. 14-15. — Æcidiis minutis, luteo-brunneis, dense aggregatis, plerumque seriatim dispositis; pseudoperidiis globosis v. ovalibus, margine inciso, recurvo; æcidiosporis irregulariter globosis v. ovalibus, pallide luteis, 16-18 μ. diam. vel 20 × 16 μ. 1336

Hab. in foliis, caulibus et ramulis junioribus Vittadiniæ australis, Victoria Australiæ.

41. **Æcidium microsporum** Diet. Hedw. 1897, p. 34. — Pseudoperidiis amphigenis, minutis, laxe gregariis, semiimmersis, margine albo, caduco; sporis globosis v. ellipticis, plus minusve angulatis, subtiliter verruculosis, 13-18 × 12 $^1/_2$-15. 1337

Hab. in foliis vivis Asteris divaricati, Serra Geral Brasiliæ (Ule).

42. **Æcidium Atractylidis** Diet. Hedw. 1898, p. 212. — Hypophyllum, in maculis purpureis vel brunneis; pseudoperidiis circulariter dispositis, margine albido denticulato caduco præditis; æcidiosporis ellipticis, polyhedricis vel globosis, 16-20 × 13-17 μ., membrana achroa subtiliter verrucosa indutis. 1338

Hab. in foliis Atractylidis ovatæ, Kobe (Hiogo) in valle supra aquæ dejectum Nunobiki Japoniæ (Dr. C. Klugkist).

43. **Æcidium Mikaniæ** P. Henn. Hedw. 1896, p. 261. — Maculis fuscis, rotundatis; æcidiis hypophyllis sparsis vel gregariis; pseudoperidiis singularibus paucis sparsis vel multis gregariis suborbiculariter dispositis, primo subhemisphæricis clausis, dein apertis cupuliformibus flavis vel subfuscis, margine fimbriatis, revolutis ca. $^1/_3$ mm. diametro, contextu cellulis oblongis, polyhedricis, flavidulis vel fuscidulis, granulato-verrucosis, 24-32 × 15-24; æcidiosporis ellipsoideis, ovoideis vel subglobosis pallide flavis, 13-18 × 11-16. 1339

Hab. in foliis Mikaniæ confertissimæ et speciei indeterminatæ ejusdem generis, St. Catharina Brasiliæ (Ule).

44. **Æcidium sclerothecioides** Ell. et Ev. Americ. Natur. 1897, p. 428. 1340

— Æcidiis amphigenis, subepidermicis, maculis flavis orbicularibus, 2-4 mm. diam. insidentibus; pseudoperidiis initio clausis, dein apertis, $^1/_2$ mm. diam.; æcidiosporis rubro-brunneis, globosis v. ovatis, 20-27 × 15, interdum subangulosis, episporio sublevi, crasso.

Hab. in foliis vivis Senecionis lugentis, Colorado Amer. bor.

45. **Æcidium thermarum** Diet. et Neg. Engl. Jahrb. 1897, p. 161. 1341
— Pseudoperidiis gregariis et fere cæspitosis, rarius solitariis, in partibus tumefactis foliorum cauliumque, cylindraceis, usque ad $1^1/_2$ mm. longis, basi immersis, margine recto denticulato v. profunde inciso, sordide albo; æcidiosporis polyhedricis, ellipticis, globosis v. ovoideis, 25-35 × 23-30, membrana dilute brunnea, crassa, poris numerosis instructa, densissime verrucosa circumdatis.

Hab. in foliis caulibusque vivis Senecionis thermarum et S. glabri in Chile (Neger).

46. **Æcidium kilimandscharicum** P. Henn. Pilze Ostafr. p. 53. — Ma- 1342
culis amphigenis, rotundatis, flavis; æcidiis hypophyllis, sparsis, 3-5 mm. diam.; pseudoperidiis aggregatis, pustulatis, flavo-brunneis, dein apertis, cupulatis, margine non laceratis, circiter 0,3 mm. diam.; æcidiosporis subglobosis, ovoideis v. oblongis, acutangulis, flavis, pallescentibus, 18-30 × 16-26, contextu cellulis pseudoperidii oblongo-polyhedricis, subhyalinis.

Hab. in foliis Senecionis multicorymbosi in Africa trop. (Volkens).

47. **Æcidium gnaphaliatum** Schwein.-Sacc. Syll. VII, p. 804 — forma 1343
Leontopodii Vogl. Bull. Soc. bot. Ital. 1896, p. 37. — Hypophyllum, in lana foliorum involutum, maculis lutescentibus; pseudoperidiis dense approximatis, longissimis; æcidiosporis luteis, 20-22 × 15-18.

Hab. in foliis Leontopodii alpini in Helvetia.

48. **Æcidium Compositarum** Mart.-Sacc. Syll. VII, p. 798. — Var. 1344
Inulæ-crithmoidis Pat. Cat. rais. pl. cell. Tunisie 1897, p. 82. — Pseudoperidiis amphigenis aut epiphyllis, in macula flavido-brunnea irregulariter dispositis; cupulis exsertis, minutis, clausis, dein apertis, albis, margine eleganter dentatis; æcidiosporis subglobosis, sæpe angulosis, levibus v. minute angulosis, 18-24 μ. diam., protoplasmate granuloso repletis.

Hab. in foliis vivis Inulæ crithmoidis in Tunisia.

49. **Æcidium Agerati** P. Henn. Pilze Ostafr. p. 53. — Æcidiis hy- 1345
pophyllis, sparsis in maculis fuscis, pseudoperidiis aggregatis, pul-

vinatis dein cupulatis, pallide fuscis, margine revoluto, fimbriato, pallido; vel æcidiis caulicolis irregulariter explanatis, pseudoperidiis confluentibus, subimmersis, plus minus pustulatis dein cupulatis; æcidiosporis subglobosis v. oblongis, acutangulis, hyalino-fuscescentibus, 16–24 × 14-22, intus granulatis.

Hab. in foliis caulibusque Agerati conyzoidis in Africa trop. (Volkens).

50. **Æcidium pachycephalum** Diet. Hedw. 1897, p. 34. — Mycelio omnes partes plantæ nutricis penetrante; æcidiis præsertim caulicolis, æqualiter sparsis, singulis foliicolis, margine albo denticulato, caduco; sporis polyhedricis, subglobosis v. ovoideis, 23-29 × 19-23, membrana verrucosa, apice valde (usque ad 11 μ.) incrassata præditis. 1346

Hab. in Baccharide megapotamica, Serra Geral Brasiliæ (Ule).

51. **Æcidium baccharidicolum** P. Henn. Hedw. 1896, p. 262. — Æcidiis caulicolis; pseudoperidiis solitariis vel aggregatis cortice fisso erumpentibus, cupulatis, pallide flavis; æcidiosporis globosis, ovoideis vel ellipsoideis, hyalinis, levibus, 16-23 × 14–20; contextu cellulis oblongis vel elongato-ovoideis, acutangulis, hyalinis intus flavidulis, granuloso-tessellatis, 20–30 × 14-24. 1347

Hab. in caulibus Baccharidis spec. pr. Buenos Ayres Argentinæ (Lorentz). — Æcidiis *Pucciniæ evadentis* Harkn. affinis.

52. **Æcidium Baccharidis** Diet. Hedw. 1897, p. 33. — Maculis irregularibus; pseudoperidiis hypophyllis, irregulariter dispositis, semiimmersis, margine recto; æcidiosporis ellipticis vel polyhedricis, subtilissime verruculosis, 20-24 μ. diam. 1348

Hab. in foliis vivis Baccharidis cujusdam, Serra Geral Brasiliæ (Ule).

53. **Æcidium Montanoæ** Diet. et Holw. Bot. Gaz. 1897, pag. 36. — Pseudoperidiis in petiolis et ramis junioribus, distorsiones efficientibus, confertis, alveolatis, margine irregulariter et profunde denticulato, cellulis 40-60 μ. longis; sporis polygonalibus, subglobosis v. irregulariter ovatis, 20–30 × 17–23, membrana tenui, hyalina, verrucosa. 1349

Hab. in petiolis ramisque Montanoæ spec. pr. urbem Mexico (Holway).

54. **Æcidium Niederleinii** P. Henn. Hedw. 1896, p. 261. — Maculis flavis vel brunneolis, irregularibus vel rotundatis; æcidiis hypophyllis; pseudoperidiis gregariis orbiculariter dispositis, pallide 1350

ochraceis vel subflavis, cupulatis, minutis, margine vix laceratis, pallidis, contextu cellulis oblongis vel ovoideo-globosis, 20-35 × 15-23, pallide flavis vel fuscescentibus, granulato-verrucosis; sporis subglobosis vel ovoideis, acutangulis, flavo-brunneis, 15-18 × 14-17; episporio tenui, brunneolo, levi.

Hab. in foliis vivis Conyzæ sinensis Prov. de la Rioja Argentinæ (Niederlein). — Differt ab *Æc. Mac Owaniano* Thüm. et *Æc. Conyzæ* P. Henn.

55. **Æcidium roseum** Diet. et Holw. Bot. Gaz. 1897, p. 36. — Maculis roseis v. purpureis, centro sæpe flavis; pseudoperidiis hypophyllis, orbiculariter v. irregulariter aggregatis, margine recurvato, denticulato; sporis subglobosis v. oblongis, 25-33 × 23-26, verrucosis, aurantiacis, membrana crassa, apice valde (5-8 μ.) incrassata. 1351

Hab. in foliis vivis Eupatorii spec., Mexico (Holway).

56. **Æcidium Vernoniæ** P. Henn. Hedw. 1896, p. 262. — Maculis sparsis, fusco-brunneis, rotundatis, interdum nervos sequentibus; æcidiis epiphyllis sparsis; pseudoperidiis gregariis, suborbiculariter dispositis vel sparsis, primo subhemisphæricis, fuscidulis, dein subcylindraceis, niveis, margine laceratis, tenuibus; contextu cellulis oblongis, raro subglobosis, acutangulis, hyalinis, granulato-verrucosis, 25-50 × 20-30; æcidiosporis subglobosis vel ellipsoideis acutangulis, hyalinis vel intus flavis, 18-26 × 18-22; episporio levi vel granuloso. 1352

Hab. in foliis vivis Vernoniæ spec. Rio de Janeiro Brasiliæ (Ule).

57. **Æcidium valdivianum** Sacc. et Syd. *Æcidium macrosporum* Diet. et Neg. Engl. Jahrb. XXII, p. 356, nec Peck. — Maculis decoloratis circularibus, 10-15 mm. diam.; spermogoniis copiosis in utraque pagina foliorum; æcidiis hypophyllis, numerosis per totam aream macularum dispersis et plus minusve concentrice dispositis vel in annulum circa aream liberam congregatis; pseudoperidiis breviter cylindraceis, ½ mm. latis, 0,3 mm. altis, margine irregulariter lacerato, albo; sporis luteis, sphæricis v. polyhedricis, membrana verruculosa hyalina præditis, 24-30 μ. diam., cellulis pseudoperidii usque duplo majoribus quam sporis. 1353

Hab. in foliis petiolisque vivis Valerianæ valdivianæ in prov. Valdivia Chile (Neger).

58. **Æcidium jasminicolum** P. Henn. Pilze Ostafr. p. 53. — Æcidiis hypophyllis, rotundatis, pustulatis v. caulicolis floricolisque sine ordine gregariis, in pustulis diverse efformatis evolutis; pseudoperidiis cupulatis semiimmersis, flavis v. ochraceis, dense gregariis, 1354

angulatis sæpe subalveolatis; æcidiosporis subglobosis v. elongatis, acutangulis, granulato-verrucosis, hyalinis subflavescentibus, 18-24 × 15-18.

Hab. in foliis caulibusque Jasmini Meyeri-Johannis in Africa trop. (Volkens).

59. **Æcidium Klugkistianum** Diet. Hedw. 1898, p. 212. — Hypophyllum in maculis rufobrunneis arescentibus; pseudoperidiis minutis magnam aream confertim obtegentibus, margine albido, irregulariter denticulato, recurvato præditis; æcidiosporis polyhedricis vel ellipticis, 19-24 × 15-20 «., verruculosis, aurantiacis. 1355

Hab. in foliis Ligustri japonici in prope Nagasaki Japoniæ (Dr. C. Klugkist).

60. **Æcidium mattogrossense** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1898, 22. extr. — Maculis non incrassatis, rotundatis, 6-10 mm. vel ultra latis, superne spermogonia fusca, numerosa, subtus æcidia sæpius permulta, interdum spermogoniis immixtis, gerentibus; pseudoperidiis basi cupula brunnea circumvallatis, e cellulis striolato-verrucosis contextis; sporis pallidis, polygoniis, circiter 24 μ. diam., membrana crassiuscula, verrucoso-punctata. 1356

Hab. in foliis Rubiaceæ cujusdam (?Sickingiæ), Matto Grosso Brasiliæ (Lindman).

61. **Æcidium asperulinum** Juel, Hedw. 1896, p. 197, Syn. *Æc. Galii* Pers. Synops. meth. fung. V, p. 207. — Mycelio perenni atque totam plantam occupanti; spermogoniis copiosissimis; æcidiis denso gregariis, sæpe totam paginam inferiorem foliorum occupantibus; pseudoperidiis validis, sublongis; æcidiosporis circiter 18 μ. diam. 1357

Hab. in foliis caulibusque vivis Asperulæ tinctoriæ in ins. Gotland Sueciæ.

62. **Æcidium calosporum** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 22 extr. — Maculis rotundatis, 5-7 mm. latis, non marginatis nec incrassatis, supra spermogonia majuscula polita picea, subtus æcidia cylindracea albida, quarum ca. 200-250 μ. diam., gerentibus; pseudoperidiis elongatis, membranaceis, e cellulis crassiuscule reticulato-verrucosis constructis; sporis admodum regularibus, angulosis, isodiametricis, circiter 31 μ. latis, obscure griseo-brunneis, membrana percrassa parum pellucida, quasi e fibris radiantibus contexta. 1358

Hab. in foliis Diospyri, Matto Grosso Brasiliæ (Malme).

63. **Æcidium Bouvardiæ** Diet. et Holw. Bot. Gaz. 1897, p. 36. — 1359

Pseudoperidiis hypophyllis, in maculis magnis (usque $1^1/_2$ cm.) flavis v. brunneolis, subgregariis, breviter cylindraceis, aurantiacis, mox albescentibus, margine erecto v. recurvato, irregulariter denticulato; sporis ellipticis v. subglobosis, 18-25 × 15-20, subtiliter verrucosis.

Hab. in foliis vivis Bouvardiæ triphyllæ pr. urbem Mexico (Holway).

64. **Æcidium cylindricum** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 61. — Hypophyllum; æcidiis subseriatis, ad costam mediam elongatis, albis, cylindraceis, circiter 1 mm. altis, margine minute subfimbriato-dentato; æcidiosporis aurantiacis, anguloso-globosis, levibus, 18-22 μ. 1360

Hab. in foliis Houstoniæ angustifoliæ, Kansas, Amer. bor. (Shear). — Folia ad partem superiorem nigrescentia et papillata ob bases æcidiorum prominentes. Ab *Æcidio houstoniato* differt æcidiis elongatis, cylindraceis.

65. **Æcidium Pæderiæ** Diet. Hedw. 1897, p. 297. — Maculis nigrescentibus circularibus v. secundum nervos foliorum oblongis, 4-10 mm. diam., plus minusve vesiculoso-inflatis; pseudoperidiis hypophyllis, rarius etiam epiphyllis, dense gregariis, minutis, cupuliformibus, margine albo, gracillime denticulato ornatis; sporis amœne aurantiacis, ovoideis, polyhedricis v. subglobosis, 16-21 × 12-14, subtiliter verruculosis, apice plerumque paullo incrassatis. 1361

Hab. in foliis Pæderiæ tomentosæ pr. Tokio Japoniæ (Miyoshi).

66. **Æcidium Pouchetiæ** Sacc. Fl. mycol. Lus. p. 68. — Pseudoperidiis hypophyllis in soros subrotundos elevatos collectis, scutellatis, subintegris, brunneolis; æcidiosporis globoso-angulosis, 18 μ. diam., vix asperulis, dilute flavidis. 1362

Hab. in foliis vivis Pouchetiæ parvifloræ ad littora ins. S. Thomé (Moller).

67. **Æcidium Randiæ** P. Henn. Hedw. 1896, p. 259. — Maculis foliicolis, fuscis vel nigricantibus, bullatis, pustulatis usque ad 3 cm. longis, 2 cm. latis, 2 mm. crassis, rotundatis, applanatis, tuberculosis; pseudoperidiis semiimmersis, incrassatis, vertice rotundato-pertusis, margine crasso, contextu cellulis oblongis vel subglobosis, polyhedricis, flavo-fuscis, 36-60 × 25-35; æcidiosporis subglobosis, ovoideis vel ellipsoideis, acutangulis, flavo-fuscescentibus, granulatis, 20-28 × 18-26, episporio fuscobrunneo. 1363

Hab. in foliis vivis Randiæ spec. duobus locis in Brasilia (Ule).

68. **Æcidium Vangueriæ** Cke.-Sacc. Syll. VII, p. 795. — Var. **tumefaciens** P. Henn. Pilze Ostafr. p. 53. — In foliis, caulibus fructibusque pustulas magnas gelatinosas efformans; cetera ut in typo. 1364

Hab. in Vangueria eduli, Africa trop. (Volkens).

69. **Æcidium brasiliense** Diet. Hedw. 1897, p. 35. — Maculis rotundatis, magnis, 1-1,5 cm. diam., arescentibus; æcidiis hypophyllis irregulariter dispositis, margine recurvato, irregulariter denticulato, caduco; sporis polyhedricis vel subglobosis, 21–25 × 18–23, verruculosis. 1365

Hab. in foliis vivis duarum specierum Cordiæ in Brasilia (Ule). — *Æc. Cordiæ* P. Henn. habet sporas multo majores.

70. **Æcidium Tournefortiæ** P. Henn. Hedw. 1895, p. 338. — Æcidiis hypophyllis, sparsis v. gregariis, rotundatis, dein confluentibus, ad laminam late effusis, maculis fuscis; pseudoperidiis circulariter v. irregulariter aggregatis, pallidis, dein fuscescentibus, semiimmersis, dein cupulatis, pulverulentis; æcidiosporis subglobosis, ellipsoideis, acutangulis, verrucosis, hyalino-flavescentibus, dein subfuscescentibus, 15-24 × 13-20; contextu cellulis rotundato-acutangulis flavofuscescentibus. 1366

Hab. in foliis Tournefortiæ spec. pr. Blumenau Brasiliæ (Möller).

71. **Æcidium Acanthi** A. L. Smith, Journ. of Bot. 1895, p. 342. — Maculis flavis, irregulariter rotundatis; æcidiis hypophyllis, laxe aggregatis; pseudoperidiis pallidis, 200 μ. diam., margine reflexo, lacerato, e cellulis hexagonis verrucosis albidis compositis; æcidiosporis subglobosis v. oblongis, hyalino-flavescentibus, 15 μ. vel 15-25 μ. 1367

Hab. in foliis Acanthi spec. Africa orient. (Elliot).

72. **Æcidium meiapontense** P. Henn. Hedw. 1895, p. 321. — Maculis amphigenis, irregularibus, fuscis; æcidiis hypophyllis, gregariis, plerumque 1 cm. diam., sæpe confluentibus; pseudoperidiis suborbicularitер dispositis vel nervos sequentibus, gregariis, minutis, punctiformibus, pallidis, dein cupulatis, margine fimbriatis; sporis subglobosis v. ellipsoideis, acutangulis, subhyalinis, levibus, 15-21 × 13-18; contextu cellulis quadratis vel rhomboideis, subhyalinis, granulatis, 18-24 × 14-18. 1368

Hab. in foliis Acanthaceæ cujusdam pr. Meiaponte Brasiliæ (Ule).

73. **Æcidium Phlogis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 284. — Æcidiis hypophyllis, sparsis; pseudoperidiis initio pustuliformibus, 1369

mox apertis cupulatis, margine lacerato-denticulatis; æcidiosporis globosis, subellipticis vel etiam subangulosis, aurantiacis, levibus, 15-20 μ. diam.

Hab. in foliis Phlogis longifoliæ, Idaho Amer. bor. (Heller). — An status æcidiosporif. *Pucciniæ plumbariæ?*

74. **Æcidium cystopoides** Speg. Contr. Fl. Sierra Ventana, 1896, p. 84. — Pseudoperidiis hypophyllis, albis confluentibus atque glomerulum unicum majusculum 3 mm. diam. difforme efficientibus, primo prominulis tectis, dein erumpentibus ac pulverem candidum emittentibus; cellulis pseudoperidii ex elliptico rhomboideis obtusis 30-40 × 25-30, hyalinis, crassissime tunicatis, grosse denseque radicatim flexuoso-striatis; æcidiosporis e globoso ellipticis 24-30 μ. diam., obtuse angulosis, candidis, subopacis (!) minute densissimeque granuloso-papillosis. 1370

Hab. in foliis Stenandrii dulcis, Sierra de la Ventana, Argentina.

75. **Æcidium Tenellæ** Diet. et Holw. Erythea 1895, p. 77. — Hypophyllum; pseudoperidiis confertis, brevibus, cupulatis, margine recurvato, albo, minute denticulato; æcidiosporis rotundatis v. oblongis, tenue verrucosis, 17-20 × 17-18, membrana hyalina præditis; spermogoniis hypophyllis, sparsis. 1371

Hab. in foliis Collinsiæ tenellæ in Washington Amer. bor. (Suksdorf.)

76. **Æcidium Tubifloræ** P. Henn. Engl. Jahrb. XXIII, p. 542. — Maculis fuscis, irregularibus, epiphyllis; æcidiis hypophyllis, ochraceis, plus minus sparsis; pseudoperidiis aggregatis, concentrice dispositis, cupulatis, contextu e cellulis oblongis, polyhedricis, flavidofuscis; æcidiosporis subglobosis v. ovoideis acutangulis, 14-20 × 14-17, episporio levi, flavo-fuscescente. 1372

Hab. in foliis Tubifloræ squamatæ in Camerunia (Zenker).

77. **Æcidium Solani-argentei** P. Henn. Hedw. 1896, p. 260. — Maculis incrassatis, cretaceis vel fuscescentibus rotundatis; pseudoperidiis gregariis orbiculariter dispositis amphigenis, rotundato-subhemisphæricis, pallide ochraceis, diutius clausis, dein erumpentibus margine integro; æcidiosporis subglobosis vel ellipsoideis acutangulis, subhyalinis vel intus flavis, 14-17 × 13-15, episporio hyalino vel flavescenti levi; contextu cellulis subglobosis vel oblongis, polyhedricis, hyalinis vel flavis, intus granulatis, 26-36 μ. 1373

Hab. in foliis vivis Solani argentei, St. Catharina Brasiliæ. (Ule).

78. **Æcidium Vestiæ** Neger, Anal. de la Univ. Santiago Chile 1896, XCIII, p. 781. — Foliis et partibus herbaceis caulium insidens et maculas flavas circulares generans; pseudoperidiis gregariis, usque 1 mm. longis, nonnunquam concentrice circulariter dispositis, aurantiacis. 1374

Hab. in foliis caulibusque Vestiæ chilensis et V. lycioidis pr. Concepcion in Chile. — Species forma sporarum ab *Æcidio Cestri* Mont. vix recedens.

79. **Æcidium Leonotidis** P. Henn. Pilze Ostafr. p. 52. — Maculis epiphyllis, fuscescentibus; æcidiis sparsis hypophyllis, in tomento nidulantibus; pseudoperidiis aggregatis v. solitariis, pustulatis, irregulariter erumpentibus, dein cupulatis; æcidiosporis subglobosis, oblongis v. ovoideis, plus minus acutangulis, hyalinis v. flavo-fuscescentibus, verrucosis, 20-32 × 20-24; spermogoniis hypophyllis; spermatiis oblongis, hyalinis, 4-5 × $2^1/_2$-3. 1375

Hab. in foliis Leonotidis velutinæ in Africa trop. (Volkens).

80. **Æcidium Hyptidis** P. Henn. Hedw. 1895, p. 337. — Maculis minutis, fuscis; æcidiis sparsis, amphigenis, plerumque hypophyllis, minutis; pseudoperidiis fuscis, diutius tectis, pulvinatis, dein apertis, cupulatis, margine laciniato-fimbriato, albo; æcidiosporis subglobosis, ellipsoideis, subacutangulis, grosse verrucosis, hyalino-flavescentibus, dein fuscescentibus, 15–28 × 13–22. 1376

Hab. in foliis vivis Hyptidis spec. pr. Blumenau (Möller) et H. verticillatæ, Minas Geraës Brasiliæ (Ule).

81. **Æcidium invallatum** P. Henn. Hedw. 1895, p. 102. — Maculis hypophyllis, sparsis, flavis v. fuscis, irregulariter rotundatis v. confluentibus; æcidiis hypophyllis; pseudoperidiis gregariis, pustulatis, flavo-brunneis, dein apertis, brevibus, cupuliformibus, margine lacerato-fimbriato, pallido, $^1/_5$ mm. diam.; contextu e cellulis oblongis, rhomboideis, acutangulis, hyalinis, reticulatis, 30-45 × 25-35; æcidiosporis subglobosis, ovoideis v. subellipsoideis, colorem cinereo-atrum simulantibus, re vera autem hyalinis, 25-30 × 22-28; episporio dense reticulato-verrucoso, hyalino. 1377

Hab. in foliis Mollinediæ spec. pr. Goyaz Brasiliæ (Ule).

82. **Æcidium bicolor** Sacc. sp. n. — Pseudoperidiis hypophyllis, gregariis, immersis erumpentibusque, discretis, epidermide elevata atrata cinctis, margine tenui, albo subintegro; cellulis peridialibus polygonalibus, 30-40 μ. diam., tunica striolata præditis, pallide ochraceis; æcidiosporis subglobosis, concoloribus, 20-22 μ. diam., asperulis. 1378

Hab. in foliis subvivis Mabæ natalensis pr. Durban, Natal. (J. M. Wood). — Ab *Æcid. rhytismoideo* f. *Mabæ* sat diversum et matrice circum-atrata margineque pseudoperidii albo (unde bicolor!) distinctum.

83. **Æcidium pusillum** Diet. Hedw. 1897, p. 34. — Epiphyllum; 1379
pseudoperidiis maculis arescentibus medio insidentibus vel secus nervos foliorum seriatim dispositis, minutis, margine albo, reflexo, denticulato; sporis ellipticis v. ovoideis, 28-45 × 22-31, dense papillatis, papillis hyalinis, basim versus confluentibus.

Hab. in foliis vivis Monimiaceæ pr. Rio de Janeiro Brasiliæ (Ule).

84. **Æcidium Philibertiæ** P. Henn. Hedw. 1896, p. 260. — Maculis 1380
flavis fuscescentibus, rotundatis; æcidiis hypophyllis v. petiolicolis sparsis; pseudoperidiis gregariis cylindraceis, pallide flavis, primo clausis, dein apertis margine minute inciso, denticulato, erecto vel parum recurvo, e cellulis oblongis vel subgloboso-ellipsoideis polyhedricis, flavidis, 24-33 × 22-30, intus verrucoso-tessellatis compositis; æcidiosporis subglobosis, ellipsoideis vel ovoideis, acutangulis intus flavis, 18-25 × 15-23, episporio levi subhyalino vel flavidulo, 2-3 μ. crasso.

Hab. in foliis petiolisque vivis Philibertiæ flavæ, Prov. de Catamarca Argentinæ.

85. **Æcidium Cnidoscoli** P. Henn. Hedw. 1895, p. 102. — Maculis 1381
fuscis, subrotundatis v. irregularibus, nervos sequentibus; pseudoperidiis orbiculariter dispositis, sparsis, plerumque hypophyllis, raro epiphyllis, minutis, flavis v. fuscidulis, diutius clausis, dein apertis, subcupulatis; contextu cellulis polyhedricis, hyalinis, verrucosis, 35-45 × 24-40; æcidiosporis subglobosis v. late ellipsoideis, hyalino-flavescentibus, levibus, 18-28 × 16-24.

Hab. in foliis vivis Cnidoscoli vitifolii pr. Goyaz Brasiliæ (Ule).

86. **Æcidium Mirabilis** Diet. et Holw. Bot. Gaz. 1897, p. 37. — Ma- 1382
culis circularibus v. irregularibus, magnis, flavis, interdum bullato-elevatis; pseudoperidiis in pagina macularum inferiore, primo cylindraceis, margine subtiliter denticulato, dein basim versus irregulariter laceratis; sporis ovatis v. oblongis, raro globosis, 20–30 × 14-22, membrana tenui, subtiliter verrucosa.

Hab. in foliis Mirabilis spec. pr. urbem Mexico (Holway).

87. **Æcidium Colignoniæ** P. Henn. Hedw. 1896, p. 258. — Maculis 1383
flavis vel pallide ochraceis, incrassatis irregularibus confluenti-

busque; æcidiis hypophyllis vel petiolicolis sparsis vel gregariis; pseudoperidiis sparsis vel aggregatis primo subhemisphæricis dein apertis semiimmersis, cupuliformibus, pallide ochraceis, margine vix denticulato, reflexo vel recto; contextu cellulis plerumque tetrangulis vel pentagonis intus tessellato-verrucosis, 23-28 × 22-26, flavo-fuscis; æcidiosporis subglobosis, ellipsoideis vel ovoideis, acutangulis, subhyalinis flavescentibus vel fuscescentibus, 15-20 × 14-18; episporio subhyalino vel brunneolo, tenui, levi.

Hab. in foliis et petiolis Colignoniæ glomeratæ, Sierra de Tucuman Argentinæ (Hieronymus, Lorentz).

88. **Æcidium Buchwaldii** P. Henn. Engl. Jahrb. XXIII, p. 542. — 1384
Maculis epiphyllis, fuscis, subrotundatis; æcidiis hypophyllis, sparsis, aurantiacis; pseudoperidiis aggregatis, plerumque orbiculariter dispositis, cupulatis, margine laciniatis, reflexis; cellulis contextus oblongis, angulatis, subreticulatis, flavis, pallescentibus; æcidiosporis subglobosis, ovoideis v. ellipsoideis, acutangulis, flavis, dein pallescentibus, intus granulosis, 18-26 × 16-23, episporio 2 μ. crasso, sublevi.

Hab. in foliis Dorsteniæ spec. in Usambara, Afr. orient. (Buchwald).

89. **Æcidium Kraussianum** P. Henn. Pilze Ostafr. p. 53. — Maculis 1385
atrofuscis, rotundatis; æcidiis hypophyllis sparsis; pseudoperidiis orbiculariter dispositis, subaggregatis, diutius clausis, pulvinatis, dein apertis, fuscis; æcidiosporis ovoideis, ellipticis v. subglobosis, sæpe acutangulis, flavo-fuscescentibus, dein brunneis, echinatis, 22-35 × 20-30; episporio valde incrassato, usque ad 10 μ. crasso, echinato-aculeato.

Hab. in foliis Smilacis Kraussianæ in Africa trop. (Volkens). — *Æc. macrosporo* Peck affine.

90. **Æcidium Alstrœmeriæ** Diet. et Neg. Engl. Jahrb. XXII, p. 355. 1386
— Maculis flavis irregularibus v. ellipticis insidens; spermogoniis numerosis, præsertim in pagina superiore foliorum; pseudoperidiis hypophyllis, tum paucis, tum numerosis congregatis, haud raro circulariter dispositis, aurantiacis, margine subtiliter denticulato, reflexo; æcidiosporis globosis, rarius polyhedricis, 20-25 μ. diam., aurantiacis, subtiliter verruculosis.

Hab. in foliis vivis Alstrœmeriæ Ligtu pr. Concepcion Chile (Neger). — *Æc. Leucoji* valde affine.

91. **Æcidium Bunsteri** Neger, Anal. de la Univ. Santiago Chile 1896, 1387
XCIII, p. 778. — Pseudoperidiis epiphyllis, seriatim dense ag-

gregatis, circiter 300 μ. latis, 180 μ. altis; sporis obscure aurantiacis, forma irregulari-rotunda, sublevibus, 25 μ. diam.

Hab. in Sisyrinchio andino in alta Cordillera circa vulcanum Callaqui, Chile.

92. **Æcidium Pasitheæ** Diet. et Neg. Engl. Jahrb. XXII, p. 356. — Amphigenum, dense gregarium; pseudoperidiis cupuliformibus, margine grosse dentato v. lobato, flavido; sporis oblonge quadrangulis v. ellipticis, 25-32 × 17-22 1/2, flavis, minute verruculosis. 1388

Hab. in foliis Pasitheæ cœruleæ pr. Santiago Chile, (A. Meyer).

93. **Æcidium importatum** P. Henn. Verh. Bot. Ver. Prov. Brandenb. 1895, p. XXV. — Spermogoniis petiolis v. nervis foliorum insidentibus, conicis, rubro-brunneis; spermatiis ellipticis v. ovoideis, hyalinis, 4-5 × 3-4: æcidiis semper in petiolis v. nervis foliorum, nunquam foliicolis; pseudoperidiis initio hemisphæricis, verruciformibus luteis v. aurantiacis, diu clausis, demum albis cupulatis v. longe cylindraceis, 1 mm. altis, margine incisis, e cellulis oblongis v. subglobosis plerumque polyhedricis initio luteolis dein hyalinis 25-45 × 22-30 metientibus compositis; æcidiosporis subglobosis v. ellipticis, sæpe angulosis, aurantiacis, guttulis multis parvis v. paucis magnis repletis, 25-30 × 20-27, episporio 1 μ. crasso, hyalino, levi v. subtilissime punctato tectis. 1389

Hab. in petiolis ac nervis foliorum Peltandræ virginicæ ex America boreali Berolinum importatæ.

94. **Æcidium Eriospermi** P. Henn. Engl. Jahrb. XXIII, p. 542. — Maculis flavis v. fuscidulis; æcidiis hypophyllis, sparsis, flavis, aurantiacis; pseudoperidiis orbiculariter dispositis, laxe aggregatis v. sparsis, minutis, cupuliformibus, margine involutis, flavis; æcidiosporis subglobosis v. oblongis, subacutangulis, subflavis, pallescentibus, 15-23 × 13-18. 1390

Hab. in foliis Eriospermi spec. in Usambara, Afr. orient. 1391

95. **Æcidium Geanthi** Diet. et Neg. Engl. Jahrb. 1897, p. 162. — Pseudoperidiis amphigenis, in acervulos circulares v. oblongos congestis, margine albo, denticulato, caduco; æcidiosporis oblongis, 25-32 × 19-25, flavescentibus, membrana minute verrucosa, achroa præditis.

Hab. in foliis Geanthi humilis pr. Baños de Cauquenes in Chile (Dusén).

96. **Æcidium coloradense** Diet. in Engler und Prantl, Natürl. Pflanzenfam. p. 78. — Pseudoperidiis valde convexis, secus series duas 1392

irregulariter interruptas dispositis, haud raro confluentibus; æcidiosporis ellipticis, ovoideis v. piriformibus, in superficie bacillis facile solubilibus instructis, 23-50 × 14-21.

Hab. in acubus Piceæ Engelmanni, Colorado Amer. bor.

97. **Æcidium Heliotropii-europæi** Schröt. Huc *Æc. Heliotropii* Boy. et Jacz., nec Tracy et Gall.

ÆCIDIELLA Ell. et Kels. Bull. Torr. Bot. Cl. 1897, p. 208 (Etym. ab *Æcidio*, cui affine genus). — Tantum sporis uniseptatis a genere *Æcidio* recedit.

1. **Æcidiella Triumfettæ** Ell. et Kels. l. c. — Maculis dilute brunneis, 1393
2-3 mm. diam., margine flavo cinctis; pseudoperidiis in macula confertis, hypophyllis, breve cylindraceis, apice rotundatis, dein truncatis ac margine subintegro; contextu e cellulis oblongis v. elliptico-oblongis, 25-30 × 15-20, punctato-scabris composito; æcidiosporis subglobosis v. obovatis, sæpe subangulosis, levibus, 20-23 × 15-20, plerumque uniseptatis.

Hab. in foliis Triumfettæ spec., ins. St. Croix Indiæ occid.

UREDO Pers. — Syll. VII, p. 838, IX, p. 327, XI, p. 222.

1. **Uredo Cherimoliæ** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 215. — 1394
Soris hypophyllis, parvis, sparsis, pallide fuscis; uredosporis ovoideis v. rotundatis, 21-27 longis, 21-27 latis, membrana tenui, luteola, echinulata, paraphysibus clavatis, membrana luteola, apice valde incrassata, circumdatis.

Hab. in foliis Anonæ Cherimoliæ in Æquatoria.

2. **Uredo Hyperici-Schimperi** P. Henn. Pilz. Ostafr. p. 51. — Ma- 1395
culis epiphyllis, rufo-brunneis, irregulariter rotundatis; soris hypophyllis, elevato-pulvinatis, aurantiis dein ochraceis, pulverulentis, sparsis, rarissime aggregatis, 0,5-2 mm. diam.; sporis ellipsoideis v. ovoideis, rotundato-obtusis, aurantio-flavis, sæpe pedicellatis, levibus, 24-30 × 18-22; episporio subhyalino, 4-5 μ. crasso, subaculeato, stipite hyalino, fragili, usque ad 25 μ. longo.

Hab. in foliis Hyperici Schimperi in Africa trop. (Volkens).

3. **Uredo Azaræ** Neger, Anal. de la Univ. Santiago, Chile 1896, 1396
XCIII, p. 776. — Soris hypophyllis, sparsis, aurantiacis, hemisphæricis, diu epidermide tectis, 1-1 ½ mm. diam.; sporis ovoideis, irregularibus, aurantiacis, 28-35 μ. diam., membrana echinulata præditis; pedicellis quasi persistentibus.

Hab. in foliis vivis Azaræ integrifoliæ in valle fluminis Tavolebu Chile.

4. **Uredo Gouaniæ** Ell. et Kels. Bull. Torr. Bot. Cl. 1897, p. 209. — Soris hypophyllis, sparsis, minutis, vix $^1/_2$ mm. diam., ferrugineis, in epiphyllo maculas dilute luteas indefinitas efficientibus; sporis obovato-echinulatis, pallide brunneis, 22-27 × 18-20. 1397

Hab. in foliis Gouaniæ domingensis, St. Croix Indiæ occid.

5. **Uredo Zizyphi** Pat. Bull. Soc. Myc. de Fr. 1896, p. 135. — Soris hypophyllis, dense gregariis, minutis, superficialibus, 150-200 μ. diam.; uredosporis brunneo-fulvis, ovatis v. piriformibus, plus minus angulosis, echinulatis, 24-30 × 20-25, pedicellis brevissimis, hyalinis, diffluentibus suffultis; paraphysibus numerosis, fulvis, clavatis, incurvis, simplicibus v. uniseptatis, 60-80 × 12-15. 1398

Hab. in foliis vivis Zizyphi, Tonkin (Bon).

6. **Uredo Uleana** Diet. Hedw. 1897, p. 36. — Soris maculis purpurascentibus insidentibus, amphigenis, concentrice dispositis, epidermide rupta castanea cinctis; sporis ellipticis v. rarius ovoideis, 35-45 × 25-33, fuscis, laxe aculeatis; poris germinationis 2. 1399

Hab. in foliis vivis Malpighiaceæ indeterminatæ, Prov. Minas Geraës Brasiliæ (Ule).

7. **Uredo uberabensis** P. Henn. Hedw. 1895, p. 321. — Maculis atrofuscis, irregulariter confluentibus, epiphyllis; soris dense gregariis, epidermide rupta cinctis, plerumque confluentibus, ochraceis, pulverulentis; sporis ovoideis, piriformibus, ellipsoideis v. subglobosis, interdum breviter stipitatis, hyalino-flavescentibus v. fuscescentibus, obtusis, dense aculeatis, 24-35 × 18-26, aculeis hyalinis acutis 1 μ. longis. 1400

Hab. in foliis Byrsonimatis spec. in prov. Minas Geraës Brasiliæ (Ule).

8. **Uredo Tillææ** Mc. Alp. Agr. Gaz. Sydney 1895, n. 11 Novbr. p. 6, fig. 16. — Soris hypophyllis, minutis, globosis v. ovalibus, interdum confluentibus; uredosporis difformibus, plerumque globosis v. subovalibus, levibus, aurantiacis, 19 μ. diam. vel 20 × 16, pedicello hyalino fultis. 1401

Hab. in foliis Tillææ spec. pr. Melbourne, Australia.

9. **Uredo andicola** Diet. et Neg. Engl. Jahrb. 1897, p. 162. — Soris epiphyllis, rarius hypophyllis, irregularibus, sparsis, epidermide mellea diu velatis, aurantiacis; uredosporis ellipticis v. obovatis, 20-25 × 14-18, episporio tenui, breviter echinulato, achroo præditis, sine paraphysibus. 1402

Hab. in foliis vivis Rubi geoidis in regione andina Araucaniæ, Chile (Neger).

10. **Uredo Terminaliæ** P. Henn. (sub Uredo Byrsonimatis P. Henn.) Hedw. 1895, p. 98. — Maculis nullis; soris hypophyllis, solitariis v. gregariis, in tomento nidulantibus, $^1/_2$-1 mm. diam., epidermide rupta cinctis, ochraceis; sporis oblongis v. clavatis, flavo-brunneis v. fuscescentibus, intus granulatis, 22-30 × 15-25, episporio levi v. subgranulato. 1403

Hab. in foliis Terminaliæ argenteæ (non Byrsonimatis) in prov. Minas Geraës Brasiliæ (Ule).

11. **Uredo Cupheæ** P. Henn. Hedw. 1895, p. 99. — Maculis epiphyllis, confluentibus, violaceo-fuscescentibus; soris plerumque hypophyllis, gregariis, pustulatis, irregulariter rotundatis v. oblongis confluentibusque, ochraceis, epidermide rupta vesiculata velatis; sporis subglobosis, ovoideis v. ellipsoideis, acutangulis, flavo-brunneis v. fuscidulis, intus subgranulatis, 18-25 × 16-24; episporio tenui, subgranulato v. sublevi. 1404

Hab. in foliis vivis Cupheæ spec. pr. Goyaz (Ule) et C. micranthæ ad Piauhy Brasiliæ (Garden).

12. **Uredo arenariicola** P. Henn. Hedw. 1896, p. 253. — Maculis minutis, sparsis, fuscis vel pallidis; soris hypophyllis punctiformibus, ochraceis vel fuscis, rotundatis; sporis subglobosis vel globoso-ellipticis, flavis vel brunneis, 18-22 × 16-20, episporio brunneo vel subcastaneo, levi vel minute verrucoso, 3 μ. crasso. 1405

Hab. in foliis Arenariæ diffusæ Prov. de Salta Argentinæ (Hieronymus, Lorentz).

13. **Uredo Eugeniarum** P. Henn. Hedw. 1895, p. 337. — Soris amphygenis caulicolisque in maculis fuscis, gregariis, irregularibus, sæpe confluentibus, flavis, subpulverulentis; sporis ovoideis, oblongis, subpiriformibus, pallide flavis, granulatis, 15-24 × 12-17; episporio $2^1/_2$-3 μ. crasso, verrucoso v. granulato, pallido. 1406

Hab. in foliis vivis Eugeniarum pr. Blumenau Brasiliæ (Möller).

14. **Uredo Licaniæ** P. Henn. Hedw. 1895, p. 99. — Maculis brunneo-fuscis, irregularibus; soris amphigenis, plerumque epiphyllis, irregulariter pulvinatis, sæpe confluentibus, ochraceis; sporis subglobosis, ovoideis v. ellipsoideis, intus læte flavis, 17-23 × 15-20; episporio subhyalino, 3-4 μ. crasso, verrucoso-aculeato. 1407

Hab. in foliis Licaniæ spec. in prov. Goyaz Brasiliæ (Ule).

15. **Uredo Sinensis** Diet. Hedw. 1898, p. 213. — Soris minimis in 1408

acervulos parvos compositis et per superiorem paginam foliorum sparsis, epidermide rupta tectis; uredosporis obovatis, 24-30 × 18-24, episporio achroo, aculeis validis instructo indutis.

Hab. in foliis Bubi reflexi ad Hongkon Chinæ (Dr. C. Klugkist).

16. **Uredo Klugkistiana** Diet. Hedw. 1898, p. 213. — Soris amphigenis mediocribus, nudis, castaneis; uredosporis ellipticis plerumque utrinque acuminatis, 35-55 × 25-30 μ. poris germinationis 4 intructis, fuscis, lineis spiralibus prominentibus hyalinis instructis et quasi alatis, apice papilla pallidiore ornatis. 1409

Hab. in foliis Rhois semialatæ inter Tsurumi et Kanagawa prope Yokohama Japoniæ (Dr. C. Klugkist).

17. **Uredo Dalbergiæ** P. Henn. Hedw. 1895, p. 98. — Soris hypophyllis dense gregariis, minutis, pallidis v. pallide ochraceis, epidermide rupta versicolori velatis, sæpe confluentibus, pulverulentis; sporis ovoideis, subglobosis v. ellipsoideis, hyalino-flavescentibus v. subfuscescentibus, granuloso-verrucosis, 16-22 × 13-16; episporio minute verrucoso. 1410

Hab. in foliis Dalbergiæ spec. pr. Goyaz Brasiliæ (Ule).

18. **Uredo cassiicola** P. Henn. Hedw. 1895, p. 98. — Maculis epiphyllis, fuscis v. atris; soris hypophyllis, gregariis sparsisque, rotundatis, vix elevatis, sæpe confluentibus, ochraceis; sporis subglobosis, ovoideis, ellipsoideis v. oblongatis, flavis v. flavo-brunneis, granulatis, 14-23 × 12-16; episporio sublevi v. granuloso, flavo-brunneo, ca. 2-3 μ. crasso 1411

Hab. in foliis Cassiæ spec. in prov. Minas Geraës Brasiliæ (Ule).

19. **Uredo mruariensis** P. Henn. Pilz. Ostafr. p. 51. — Maculis fuscis; soris amphigenis, gregariis, orbiculariter dispositis, confluentibus, ochraceo-aurantiis, elevatis, diutius tectis; uredosporis ovoideis v. ellipsoideis, granulato-verrucosis, flavo-ochraceis v. subfuscescentibus, 18-22 × 12-14; episporio 1-2 μ. crasso, minute aculeato. 1412

Hab. in foliis Cassiæ goratensis in Africa trop. (Volkens).

20. **Uredo Longipedis** P. Henn. Hedw. 1895, p. 97. — Maculis amphigenis, brunneo-fuscis, subrotundatis; soris amphigenis, circulariter dispositis v. nervos sequentibus, pustulatis, ochraceis, epidermide rupta cinctis; sporis ovoideis, subglobosis v. ellipsoideis, flavis v. flavo-brunneis, verrucosis, 18-24 × 14-18; paraphysibus clavatis v. capituliformibus, aurantiis v. brunneis, usque ad 45 μ. longis, 12-18 μ. crassis; pedicello hyalino. 1413

Hab. in foliis vivis Calliandræ longipedis pr. Goyaz Brasiliæ (Ule).

21. **Uredo Baphiæ** P. Henn. Engl. Jahrb. XXIII, p. 543. — Maculis minutis, gregariis, amphigenis, sparsis; soris pulvinatis, atris, hypophyllis; uredosporis subglobosis, ovoideis, acutangulis, brunneis, aculeato-echinatis, 20-26 × 19-24. 1414

Hab. in foliis Baphiæ nitidæ in Camerunia (J. Braun).

22. **Uredo Machærii** Diet. Hedw. 1897, p. 36. — Soris confluentibus ramos valde deformatos plane obtegentibus, cinnamomeis; sporis ovoideis, circiter 16 × 14 μ., dilute fuscis, breviter echinulatis. 1415

Hab. in foliis Machærii spec. in Brasilia (Ule). — An hæc species ad *Raveneliam* ducenda est?

23. **Uredo Pithecolobii** P. Henn. Hedw. 1895, p. 98. — Soris caulicolis deformantibus, corticem rumpentibus, confluentibus, pulverulentis, ochraceis; sporis ellipsoideis, ovoideis v. subglobosis, hyalino-flavescentibus, intus granulosis, 15–26 × 12-18; episporio verrucoso. 1416

Hab. in ramis Pithecolobii spec. in prov. Goyaz Brasiliæ (Ule).

24. **Uredo maranguensis** P. Henn. Pilz. Ostafr. p. 51. — Maculis rotundatis, flavis, deinde fuscescentibus; soris hypophyllis, elevato-pulvinatis, cinereo-brunneis, deinde fusco-ochraceis, plerumque 1 mm. diam.; uredosporis ovoideis v. ellipsoideis, subfuscis, granulato-verrucosis, 16-23 × 14-18; episperio 2 μ. crasso, verrucoso, fusco; paraphysibus clavatis, hyalino-fuscescentibus, levibus, 62-75 × 15-18. 1417

Hab. in foliis Indigoferæ arrectæ in Africa trop. (Volkens).

25. **Uredo Lentis** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 215. — Soris caulicolis v. foliicolis, parvis, atro-brunneis, rotundatis v. elongatis, sparsis, primo epidermide tectis; sporis globosis v. rarius ovatis, castaneis, 21-33 μ. diam., membrana aculeolata, ad poros germinationis incrassata. 1418

Hab. in caulibus foliisque Lentis esculentæ in Æquatoria.

26. **Uredo Desmodii-tortuosi** P. Henn. Hedw. 1896, p. 252. — Maculis minutis pallidis vel nullis; soris amphigenis plerumque hypophyllis, sparsis vel gregariis interdum confluentibus, pulvinato-applanatis vel patelliformibus, epidermide rupta pallida cinctis, $^1/_2$–1 mm. diametro, pallide cinnamomeis; sporis ovoideis vel oblongis, flavo-brunneis, 18–28 × 15–23; episporio levi, brunneo, 1-2 μ. crasso. 1419

Hab. in foliis vivis Desmodii tortuosi in ins. Puertorico (Sintenis).

27. **Uredo bauhiniicola** P. Henn. Hedw. 1895, p.98. — Soris caulicolis, late effusis, confluentibus, in tomento nidulantibus, pallide flavis; sporis subglobosis, ellipsoideis v. ovoideis, hyalino-flavescentibus, dense aculeatis, 14-20 × 12-18; episporio aculeato, subhyalino. 1420

Hab. in ramis junioribus Bauhiniæ rubiginosæ pr. Goyaz Brasiliæ (Ule).

28. **Uredo Arachidis** Lagh. Ured. herb. Fries. 1895, p. 106. — Soris parvis, hypophyllis, sparsis, epidermide rupta cinctis, castaneis; uredosporis ovoideo-rotundatis, 24-30 μ. diam.; episporio fulvo, aculeato, ad poros germinationis incrassato. 1421

Hab. in foliis vivis Arachidis hypogææ in Surinam Amer. merid.

29. **Uredo eupatoriicola** P. Henn. Hedw. 1895, p. 337. — Maculis fuscis, sparsis; soris amphigenis, pustulatis, flavo-fuscescentibus, diutius clausis, oblongis v. rotundatis, ca. 1 mm. diam.; sporis ovoideis, subglobosis v. ellipsoideis, hyalino-flavescentibus v. fuscescentibus, aculeato-verrucosis, 17-28 × 15-25; episporio aculeato. 1422

Hab. in foliis vivis Eupatorii spec. pr. Blumenau Brasiliæ (Möller).

30. **Uredo Chætantheræ** Neg. Engl. Jahrb. XXII, p. 358. — Soris præsertim in foliis involucri, minutis, punctiformibus v. breviter linearibus, $^1/_2$ mm. longis, $^1/_5$ mm. latis; sporis globosis, rarius ovoideis v. oblongis, ca. 25 μ. diam., intense castaneis, minute echinulatis. 1423

Hab. in involucris Chætantheræ linearis pr. Concepcion Chile (Neger).

31. **Uredo Elephantopodis** P. Henn. Hedw. 1896, p. 253. — Maculis fuscis irregularibus; soris hypophyllis, minutis, pulvinato-applanatis, rotundatis, dein cupulatis epidermide rupta cinctis, pallide ochraceis, subpulverulentis; sporis subglobosis vel late ellipsoideis, brunneo-fuscis, 15-20 × 14-18; episporio crasso, atrobrunneo, dense verrucoso. 1424

Hab. in foliis Elephantopodis scabri in Brasilia (Ule).

32. **Uredo valdiviana** Diet. et Neg. Engl. Jahrb. XXII, p. 358. — Soris hypophyllis, minutis, sparsis, aurantiacis, epidermide fissa semitectis; sporis obovatis v. oblongis, 33-43 × 23-28, membrana achroa echinulata præditis. 1425

Hab. in foliis vivis Baccharidis elæoidis pr. Corral in Chile (Neger).

33. **Uredo Bidentis** P. Henn. Hedw. 1896, p. 251. — Maculis nullis 1426
vel fuscidulis; soris sparsis vel dense gregariis amphigenis, sæpe hypophyllis, minutis, pulvinatis applanatisque vel subpatelliformibus, ochraceis, epidermide rupta cinctis; sporis ovoideis, ellipsoideis vel subglobosis, flavis vel læte brunneis, 24-34 × 22-28; episporio castaneo, 2–3 μ. crasso, sublevi vel minute verrucoso.

Hab. in foliis vivis Bidentis pilosi et helianthoidis duobus locis in Brasilia (Ule).

34. **Uredo Siphocampyli** P. Henn. Hedw. 1896, p. 249. — Soris am- 1427
phigenis dense gregariis confluentibusque, folium omnino occupantibus, cinnamomeis, pulverulentis; sporis subglobosis ovoideis vel ellipsoideis, læte brunneis, 23-28 × 21-26; episporio castaneo, tenui, sublevi vel minute verruculoso.

Hab. in foliis Siphocampyli spec. Sierra de Tucuman Argentinæ (Hieronymus, Lorentz).

35. **Uredo Ipomœæ-pentaphyllæ** P. Henn. Hedw. 1896, p. 252. — Ma- 1428
culis flavis irregularibus confluentibusque; soris sparsis vel gregariis æcidiiformibus, hypophyllis, primo pustulatis, pallidis vel flavis, dein apertis, epidermide inflata cinctis; uredosporis subglobosis ovoideis vel subellipsoideis, flavis vel fuscobrunneis, 16-24 × 15-23; episporio dense verrucoso.

Hab. in foliis vivis Ipomœæ pentaphyllæ pr. Rio de Janeiro Brasiliæ (Ule).

36. **Uredo Dieteliana** Sacc. et Syd. *U. spinulosa* Diet. Hedw. 1897, p. 36, 1429
nec Cke. — Soris maculis pallidis insidentibus, amphigenis præsertim epiphyllis, per paucos aggregatis, interdum circulariter dispositis, minutis, epidermide fissa cinctis, cinnamomeis; sporis ovoideis vel globosis, 31-40 × 24-33, pallide fuscis, aculeis acutis ornatis.

Hab. in foliis vivis Convolvulaceæ indeterminatæ pr. Rio de Janeiro Brasiliæ (Ule).

37. **Uredo Adenocalymmatis** P. Henn. Hedw. 1896, p. 249. — Maculis 1430
nullis; soris hypophyllis sparsis gregariisque minutis, rotundato-pulvinatis, pallide ochraceis, pulverulentis; sporis subglobosis, ovoideis, ellipsoideis vel piriformibus sæpe acutangulis, subhyalinis vel pallide flavis fuscidulisque, intus granulato-punctatis, 15-24 × 13-18; episporio dilute brunneolo vel fuscidulo, tenui, granulato-verrucoso.

Hab. in foliis Adenocalymmatis paulistarum in prov. St. Catharina Brasiliæ (Ule).

38. **Uredo Arrabidææ** P. Henn. Hedw. 1896, p. 250. — Maculis 1431
nullis; soris hypophyllis sparsis vel dense gregariis, punctiformibus, rotundatis, pallide ochraceis, diutius tectis; sporis subglobosis, ovoideis vel ellipsoideis, subhyalinis vel pallide flavis, 16-25 × 14-21; episporio flavo vel subbrunneo, minute verrucoso; paraphysibus basi conjugatis, clavatis vel fusoideis, subrectis vel curvulis unguiformibusque apice obtusis vel acutis, flavis vel læte brunneis, 26-35 × 8-11.

Hab. in foliis Arrabidææ conjugatæ et sericeæ pr. Rio de Janeiro Brasiliæ (Ule).

39. **Uredo cuticulosa** Ell. et Ev. Bull. Labor. Nat. Hist. Univ. 1432
Jowa IV, 1896, p. 67. — Soris gregariis, tenuibus, pallide carneis, $^1/_2$-2 mm. diam., epidermide tenui alba circumscriptis, mox confluentibus, stratum tenue, carneum, $^1/_2$-1 cm. diam. formantibus; sporis globosis, 15-20 μ. vel obovatis, 18-23 × 15-20; episporio crasso, hyalino, superne dense tuberculoso, dein inferne levi.

Hab. in foliis vivis Bignoniæ spec. in Nicaragua (Smith).

40. **Uredo Castilleiæ** Diet. et Holw. Erythea 1893, p. 247. — Soris 1433
brunneis, plerumque hypophyllis, in lana foliorum evolutis; sporis late ovalibus v. sphæricis, castaneis, subtiliter echinulatis, 24-30 μ. diam.

Hab. in foliis vivis Castilleiæ foliolosæ, California Amer. bor. (Blasdale).

41. **Uredo coleosporioides** Diet. et Holw. Erythea 1893, p. 247. — 1434
Soris caulicolis v. foliicolis, hypophyllis, aurantiacis; sporis ovoideis usque oblongis, echinulatis, membrana hyalina, 22-30 × 15-25.

Hab. in foliis vivis Castilleiæ foliolosæ in California (Blasdale). — Habitu externo statum uredosporiferum *Coleosporii* simulat, sed sporæ non catenatæ.

42. **Uredo utahensis** Syd. *Uredo Castilleiæ* Tracy et Earle. Proc. 1435
Californ. Acad. V, 1895, p. 731, nec Diet. et Holw. — Soris amphigenis, minutis, rotundis v. oblongis, diu epidermide tectis; uredosporis ovalibus v. globosis, rubro-brunneis, episporio subtiliter et distincte aculeolato, crassiusculo, contextu granuloso, 20-24 × 15-18.

Hab. in foliis Castilleiæ affinis, Utah, Amer. bor.

43. **Uredo Stenandrii** Speg. Contr. Fl. Sierra Ventana, 1896, p. 84. 1436
— Maculis nullis v. pallescentibus, indeterminatis, diffusis; soris parvulis, 0,3-0,5 mm. diam., sæpius densiuscule gregariis, primo prominulis epidermide integra tectis, dein erumpentibus, pulverulentis, atro-fuligineis; uredosporis globosis vel ovatis, 24-26 μ.

diam., crassiuscule tunicatis, minute denseque papillosis, fulvo-ferrugineis.

Hab. in foliis Stenandrii trinervis in pascuis Sierra de la Ventana, Argentina.

44. **Uredo varia** Diet. Hedw. 1897, p. 35. — Soris maculis fuscis, arescentibus circularibus, 1,4-4 mm. diam., insidentibus, epiphyllis, plerumque concentrice dispositis, paucis hypophyllis, epidermide circumvallatis; sporis fuscis, spinulosis, ellipticis v. subglobosis, ovoideis vel irregularibus, 28-40 × 20-28. 1437

Hab. in foliis Acanthaceæ indeterminatæ pr. Rio de Janeiro Brasiliæ (Ule).

45. **Uredo Alibertiæ** P. Henn. Hedw. 1896, p. 254. — Maculis flavis; soris hypophyllis sparsis vel gregariis, minutis, pulvinato-rotundatis, pallide ochraceis, diutius tectis dein vertice pertusis; sporis ellipsoideis oblongis, ovoideis, clavatis, raro subglobosis, acutangulis, pallide brunneis vel fuscis, 28-45 × 26-34, vertice incrassatis; episporio atrobrunneo vel fusco, aculeato-verrucoso, 3-5 μ. crasso. 1438

Hab. in foliis vivis Alibertiæ ellipticæ, San Paulo Brasiliæ (Ule).

46. **Uredo Holstii** P. Henn. Pilz. Ostafr. p. 52. — Soris hypophyllis, gregariis confluentibusque in tomento nidulantibus, velatis, diutius tectis, deinde erumpentibus, epidermide cinctis, pallide flavis v. griseo-fuscis; sporis subglobosis, ovatis v. ellipsoideis, dense verrucosis, hyalino-fuscescentibus, 21-28 × 18-22. 1439

Hab. in foliis Psychotriæ sp. in Africa trop. (Holst).

47. **Uredo Psychotriæ-Volkensii** P. Henn. Pilz. Ostafr. pag. 52. — Maculis rotundatis, dein confluentibus, fuscis; soris hypophyllis, interdum epiphyllis, minutis, solitariis v. aggregatis confluentibusque, pulverulentis, citrinis v. flavo-ochraceis; sporis subglobosis, ovoideis v. subellipsoideis, flavis v. aurantiis, aculeato-verrucosis, 15-19 × 14-18; episporio 1-1 $^1/_2$ μ. crasso, dense aculeato. 1440

Hab. in foliis Psychotriæ Volkensii in Africa trop. (Volkens).

48. **Uredo psychotriicola** P. Henn. Hedw. 1895, p. 321. — Maculis flavis v. fuscis, irregulariter rotundatis; soris epyphillis, interdum hypophyllis, minutis, sparsis, ochraceis, diutius epidermide velata tectis, rotundatis v. oblongis, sæpe confluentibus; sporis ellipsoideis v. subglobosis, verrucosis, hyalino-flavescentibus, 24-30 × 18-25; episporio aculeato, incrassato. 1441

Hab. in foliis vivis Psychotriæ spec. pr. Goyaz Brasiliæ (Ule).

49. **Uredo Viticis** Juel. Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 26, extr. — Soris hypophyllis, sparsis, maculas non efficientibus, minutissimis, ferrugineis, paraphysibus hyalinis circumvallatis; uredosporis irregularibus, sæpius obovatis, circiter 20 μ. diam., membrana dilute brunnea, obtuse aculeolata. 1442

Hab. in foliis Viticis, Paraguay (Malme).

50. **Uredo Salviæ** Diet. Hedw. 1897, p. 36. — Soris epiphyllis, mediocribus, nudis, cinnamomeis; sporis globosis, rarius late ellipticis, circiter 25 μ. diam., membrana fusca, echinulata præditis. 1443

Hab. in foliis Salviæ spec., Serra Geral Brasiliæ (Ule).

51. **Uredo Hyptidis** P. Henn. Hedw. 1895, p. 100. — Maculis fuscis v. atris, epiphyllis; soris hypophyllis, in tomento nidulantibus, confluentibus, ochraceis; sporis subglobosis, fuligineis, echinulatis, 23-28 μ.; episporio echinulato, castaneo, 2-3 μ. crasso. 1444

Hab. in foliis vivis Hyptidis scabræ in prov. Minas Geraës Brasiliæ (Ule).

52. **Uredo sphacelicola** Diet. et Holw. Erythea 1893, p. 248. — Maculis flavescentibus v. nullis; soris amphigenis, rotundatis, ca. 1 mm. diam., pulverulentis, primo epidermide rupta tectis, fulvis; sporis globosis, brunneis, dense echinulatis, 32-40 μ. diam. 1445

Hab. in foliis vivis Sphaceles calycinæ in California. (Blasdale).

53. **Uredo Leonotidis** P. Henn. Pilz. Ostafr. p. 52. — Soris minutis, amphigenis, brunneis v. ochraceis, solitariis v. aggregatis, maculis fuscis, rotundatis v. irregulariter confluentibus; sporis subglobosis v. ovoideis ellipsoideisque, fusco-brunneis, intus verrucosis, 22-30 × 20-24; episporio castaneo, aculeato. 1446

Hab. in foliis Leonotidis velutinæ, cum Æcidio, in Africa tropica (Volkens).

54. **Uredo cancerina** P. Henn. Hedw. 1895, p. 330. — Soris caulicolis, pustulis magnis canceriformibus, primo epidermide tectis, dein irregulariter erumpentibus, rufo-brunneis, pulverulentis, usque ad 4 cm. longis, 3 cm. latis; uredosporis subglobosis v. ellipsoideis verrucoso-aculeatis, fuscis v. fusco-brunneis, 20–25 × 19–24; episporio atro-fusco, aculeis concoloribus densis tecto. 1447

Hab. in caulibus Leonotidis velutinæ in Erythræa (Schweinfurth).

55. **Uredo Forsteroniæ** P. Henn. Hedw. 1895, pag. 99. — Maculis nullis v. obsoletis; soris minutissimis, hypophyllis v. caulicolis, pallide flavis, sparsis, rotundatis, punctiformibus; sporis subglo- 1448

bosis v. ellipsoideis, ovoideis, hyalinis, dense echinulatis, 15-24 13-21.

Hab. in foliis ramulisque Forsteroniæ spec. in prov. Goyaz Brasiliæ (Ule).

56. **Uredo Periplocæ** P. Henn. Pilz. Ostafr. p. 52. — Maculis flavis, irregularibus; soris hypophyllis, sparsis v. aggregatis, pulvinato-applanatis, ochraceis; sporis ovoideis v. ellipsoideis, subaurantio flavis, verrucosis, interdum pedicellatis, 18-26 × 15-22, episporio pallidiore, verrucoso, 1 ½-2 μ.; pedicello hyalino, 9-15 × 4-5 μ. 1449

Hab. in foliis Periplocæ linearis in Africa trop. (Volkens).

57. **Uredo Ditassæ** P. Henn. Hedw. 1896, p. 249. — Soris hypophyllis rarius epiphyllis, gregariis, paginam inferiorem totam obtegentibus, minutis, punctiformibus, hemisphæricis, pallide ochraceis, diutius tectis, vertice erumpentibus, epidermide velata cinctis, subcupuliformibus; sporis ovoideis vel ellipsoideis, subbrunneis vel fuscis, 20-28 vel 35 × 15-32; episporio tenui, brunneolo, 1 ½-2 μ. crasso, levi vel minute verruculoso. 1450

Hab. in foliis vivis Ditassæ campestris duobus locis in Argentina (Hieronymus).

58. **Uredo Coccolobæ** P. Henn. Hedw. 1896, p. 253. — Maculis sparsis, minutis, atrosanguineis vel obsoletis; soris hypophyllis sparsis, interdum aggregatis, punctiformibus, rufobrunneis, pulvinatis, epidermide diutius tectis, dein cinctis; sporis subglobosis, ovoideis, oblongis vel subclavatis, interdum acutangulis, subhyalinis, pallide flavis vel subbrunneolis, 16-30 × 14-17; episporio minute verrucoso, brunneolo, 2-3 μ. crasso. 1451

Hab. in foliis vivis Coccolobæ populifoliæ pr. Rio de Janeiro Brasiliæ (Ule).

59. **Uredo purpurascens** Diet. et Neg. Engl. Jahrb. 1897, p. 162. — Soris amphigenis in maculis purpureis sparsis, minutis, ochraceis; uredosporis ellipticis v. subglobosis, breviter echinulatis, flavo-brunneis, poris germinationis numerosis instructis, 30-38 × 25-28. 1452

Hab. in foliis Rumicis spec. pr. Concepcion in Chile (Neger).

60. **Uredo Achyranthis** P. Henn. Pilz. Ostafr. p. 51. — Maculis epiphyllis, flavis, dein brunneis; soris hypophyllis, sparsis v. aggregatis, rotundatis, irregulariter acutangulis, applanatis, pallidis, diutius tectis, dein erumpentibus, flavis, 1-2 mm. diam.; sporis ellipsoideis v. subglobosis, flavescentibus, sublevibus, punctulatis, 13-17 × 12-15; episporio tenui, levi. 1453

Hab. in foliis Achyranthis asperæ in Africa trop. (Volkens).

61. **Uredo Mogiphanis** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 24, extr. — Maculis rotundatis, circiter 6 mm. latis, non marginatis, brunneis, soros in utraque pagina sed præsertim subtus gerentibus; soris $^1/_2$-1 mm. latis, cinnamomeis, sæpe circinatis; uredosporis sæpius subglobosis, circiter 30 μ. diam., poris fere 6 præditis, membrana haud crassa pallide brunnea, papillis granuliformibus regulariter et creberrime obsita, plasmate hyalino. 1454

Hab. in foliis Mogiphanis, Matto Grosso, Brasilia (Lindman).

62. **Uredo solenioides** P. Henn. Hedw. 1896, p. 250. — Maculis nullis; soris hypophyllis sparsis vel subaggregatis, minutis, subglobosis, poculi-vel cupuliformibus, apice rotundato apertis, pallide ochraceis, 180-220 μ. diametro; sporis triangularibus oblique tetrangulis vel subglobosis, castaneis, 18-30 × 15-25; episporio primo sublevi, tandem verrucis subhemisphæricis castaneis tecto; paraphysibus basi conjugatis vermiformibus vel clavatis, curvatis, apice obtusis, flavis vel brunneolis, 30-80 × 8-10 μ. 1455

Hab. in foliis vivis Nectandræ rigidæ, San Francisco Brasiliæ (Ule).

63. **Uredo farinosa** P. Henn. Hedw. 1897, p. 216. — Soris rami v. foliicolis, deformantibus, confluentibus, albo-farinaceis, effusis; sporis ovoideis, late ellipsoideis v. subglobosis, hyalino-flavescentibus, 9-14 × 8-11; episporio usque ad 2 μ. crasso, levi, hyalino. 1456

Hab. in apicibus ramorum et foliis Lauraceæ cujusdam pr. Goyaz Brasiliæ (Glaziou).

64. **Uredo daphnicola** Diet. Hedw. 1898, p. 213. — Soris maculis flavis vel fuscis insidentibus hypophyllis, solitariis vel in acervulos mediocres compositis epidermide rupta semitectis uredosporis ellipticis vel subglobosis, 21–26 × 17–21, episporio achroo verrucoso donatis, paraphysibus clavatis vel capitatis immixtis. 1457

Hab. in foliis Daphnes sp. (odoræ?) Kowloon in conspectu urbis Hongkong Sinarum (Dr. C. Klugkist).

65. **Uredo Goebeliana** P. Magn. Flora 84, 1897, p. 176, c. fig. — Soris uredosporiferis amphigenis, solitariis v. aggregatis, dilute cinnamomeis, vix 1 mm. diam., epidermide fissa cinctis; uredosporis ovalibus, 19-23 × $15\,^1/_2$-19, episporio verrucis numerosis solitariis regulariter per superficiem sparsis tecto, 3-4 poris germinationis instructis. 1458

Hab. in foliis Parietariæ spec. in Venezuela.

66. **Uredo ficina** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. 1459

III, n. 10, 1897, p. 25, extr. — Hypophylla, late effusa, maculas non formans; soris minutis, circiter 150 μ. diam., tandem pulveraceis, fulvis, paraphysibus numerosissimis incurvis deformibus, membrana crassissima lutea instructis circumvallatis; sporis plerumque obovatis, interdum rotundatis, sæpius ca. 32 × 23, membrana dilutissime brunnea, aculeis validis minus dense obsita.

Hab. in foliis Fici, Paraguay (Lindman).

67. **Uredo velata** Ell. et Ev. Bull. Tour. Bot. Club. 1895, p. 435. — Soris amphigenis, plerumque epiphyllis, pulvinatis, sparsis, orbicularibus, $^1/_2$-1 mm. diam., plerumque rubro-purpureo-marginatis, epidermide demum centro rupta semper velatis; sporis ellipticis, pallidis, episporio crasso, subtiliter echinulatis, 22-30 × 18-20; paraphysibus parce evolutis. 1460

Hab. in foliis Euphorbiæ cordatæ in ins. Sandwicens. (Heller).

68. **Uredo tangaënsis** P. Henn. Pilz. Ostafr. p. 51. — Soris hypophyllis, solitariis v. gregariis, pallide ochraceis, rotundatis, circiter 0,5 mm., epidermide cinctis, maculis pallidis, irregularibus; sporis ellipsoideis v. subglobosis, flavo-fuscescentibus v. subhyalinis, dense granulato-verrucosis, 22-28 × 15-22 1461

Hab. in foliis Euphorbiæ sp. frutescentis in Africa trop. (Volkens).

69. **Uredo Euphorbiæ-Engleri** P. Henn. Pilz. Ostafr. p. 51. — Maculis pallide fuscis, rotundatis, sparsis; soris uredosporiferis hypophyllis, plerumque concentrice dispositis, pustulatis, dein epidermidem rumpentibus, ochraceo-fuscis, circ. 0,5 mm.; uredosporis ellipsoideis, ovoideis v. subglobosis, flavo-fuscis, dense verrucosis, 16-28 × 14-23; episporio subhyalino-fuscescente, crasso, verrucoso; paraphysibus clavatis v. subellipsoideis, brunneo-fuscis, levibus. 1462

Hab. in foliis vivis Euphorbiæ Engleri in Africa trop. (Volkens).

70. **Uredo capituliformis** P. Henn. Hedw. 1895, p. 97. — Soris in maculis subflavescentibus v. obsoletis, hypophyllis, gregariis, rotundatis, minutis, ca. 1 mm. diam. dispositis, capituliformibus, subglobosis, castaneis v. rufo-brunneis, 75-170 μ. diam., paraphysibus basi conjunctis, subulatis v. corniformibus, castaneis, 45-60 × 5-7, cinctis; sporis stellulatis, subcordatis, ovoideis, tri-vel multiangulatis, castaneis v. fusco-brunneis, levibus v. minutissime verrucosis, 15-25 × 13-23. 1463

Hab. in foliis Alchorneæ spec. in prov. Goyaz Brasiliæ (Ule).

71. **Uredo Alchorneæ** P. Henn. Hedw. 1896, p. 252. — Soris in caulibus fructibusque eos deformantibus, sparsis vel gregariis pulvinatis, confluentibus, epidermide rupta cinctis, ochraceis pulverulentis; uredosporis subglobosis, ellipsoideis vel ovoideis flavo-brunneis vel fuscis, 16–22 × 15-19; episporio brunneo vel fusco minute verrucoso. 1464

Hab. in caulibus fructibusque Alchorneæ iricuræ Prov. St. Catharina Brasiliæ (Ule).

72. **Uredo Phyllanthi** P. Henn. Hedw. 1896, p. 248. — Maculis nullis vel punctiformibus, fuscis, gregariis; soris hypophyllis sparsis vel gregariis minutis, punctiformibus, pulvinato-bullatis, epidermide pallide fusca tectis vel cinctis; sporis subglobosis, ovoideis vel oblongis sæpe acutangulis, intus flavo-brunneis, 15-30 × 13-23; episporio levi, 2-3 μ. crasso. 1465

Hab. in foliis vivis Phyllanthi spec. Rio de Janeiro Brasiliæ (Ule).

73. **Uredo crotonicola** P. Henn. Hedw. 1896, p. 251. — Maculis nullis vel fuscidulis; soris amphigenis, minutis punctiformibus, sparsis gregariisque, rotundato-pulvinatis vel hemisphæricis, pallide ochraceis, diutius tectis, dein epidermide velata cinctis; sporis subglobosis, ovoideis vel oblongis, pallide flavis vel fuscidulis intus pustulatis, 18-28 × 15-22; episporio brunneolo, 2-3 μ. crasso, sublevi vel punctulato. 1466

Hab. in foliis vivis Crotonis glandulosi, La Calera Argentinæ (Galander).

74. **Uredo Crotonis** P. Henn. Hedw. 1895, p. 99. — Soris hypophyllis, dense gregariis confluentibusque, pulvinatis, ochraceis, pulverulaceis; sporis ellipsoideis, ovoideis v. subglobosis, flavo–vel brunneo-fuscis, dein subatris, aculeatis, 30-40 × 20-30; episporio 3-4 μ. incrassato, aculeato aculeis apiculatis, 1-2 μ. longis, subh alinis. 1467

Hab. in foliis Crotonis spec. in prov. Minas Geraës Brasiliæ (Ule).

75. **Uredo Dioscoreæ** P. Henn. Hedw. 1896, p. 255. — Maculis pallidis vel fuscidulis confluentibusque; soris amphygenis, sparsis gregariisque, patelliformibus epidermide rupta cinctis, ochraceis, punctiformibus, ⅓-½ μ. diametro; sporis ovoideis, ellipsoideis vel subglobosis, flavo-brunneis vel fuscis intus punctulatis, 20-25 × 15-22 μ., episporio læte brunneo, tenui, aculeato-verrucoso. 1468

Hab. in foliis vivis Dioscoreæ grandifloræ pr. Rio de Janeiro Brasiliæ (Ule).

76. **Uredo ochracea** Diet. Hedw. 1897, p. 35. — Soris hypophyllis, maculis ochraceis, in superiore pagina foliorum rubiginosis, indeterminatis insidentibus, diu tectis; sporis ellipticis vel ovoideis, ca. 30 × 25 μ., membrana tenui, echinulata, dilute flavo-brunnea præditis; poris germinationis 2. 1469

Hab. in foliis vivis Commelinæ spec. pr. San Francisco Brasiliæ (Ule).

77. **Uredo Bomareæ** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 215. — Soris parvis, hypophyllis, sparsis vel confluentibus, luteis; uredosporis rotundatis v. ovoideis, 21-28 μ. diam., membrana achroa, echinulata, contentu pallide aurantiaco. 1470

Hab. in foliis Bomareæ sp. in Æquatoria.

78. **Uredo Heterantheræ** P. Henn. Hedw. 1896, p. 248. — Maculis amphigenis, sparsis gregariisque, minutis rotundatis; soris sparsis vel aggregatis, minutis punctiformibus, rotundatis, diu epidermide tectis, dein ruptis brunneis vix $^1/_3$ mm. diametro; sporis subglobosis, ovoideis vel ellipsoideis, 18-25 × 16-24 brunneis; episporio tenui, levi. 1471

Hab. in foliis vivis Heterantheræ reniformis, Prov. St. Catharina Brasiliæ (Ule).

79. **Uredo Eucharidis** Lagh. Bull. Soc. Myc. de Fr. 1895, p. 215. — Soris plerumque hypophyllis, pustuliformibus, sparsis, parvis, primo epidermide tectis, luteis; uredosporis ovoideis, 22-33 × 18-24, membrana achroa, echinulata, contentu pallide aurantiaco. 1472

Hab. in foliis Eucharidis candidæ in Æquatoria.

80. **Uredo commelinacea** Ell. et Kels. Bull. Torr. Bot. Cl. 1897, p. 209. — Soris amphigenis sparsis v. maculis suborbicularibus indefinitis brunneolis subbullatis insidentibus, 3-5 mm. diam., epidermide in pustulas hemisphæricas ferrugineas $^1/_2$-1 mm. diam. elevata denique centro fissa tectis; sporis echinulatis, globosis, 19-21 μ. diam. vel etiam ellipticis, 22-27 × 20-22, ferrugineis. 1473

Hab. in foliis Commelinæ elegantis, St. Croix Indiæ occid.

81. **Uredo Alstrœmeriæ** Diet. Hedw. 1897, p. 35. — Soris amphigenis, minutis, diu tectis, deinde epidermide reflexa circumdatis, cinnamomeis; sporis ellipticis vel subglobosis 23-30 × 20-23, luteolis, echinulatis; poris germinationis numerosis. 1474

Hab. in foliis vivis Alstrœmeriæ spec. in Prov. Minas Geraës Brasiliæ (Ule) et A. revolutæ pr. Concepcion in Chile (Neger).

82. **Uredo Heliconiæ** Diet. Hedw. 1897, p. 35. — Soris epiphyllis, sparsis, maculis rubiginosis vel fuscis, singulis, insidentibus, minutis, primo tectis, deinde epidermide rupta cinctis; sporis ovoideis vel piriformibus, 22-30 × 16-21, membrana achroa grosse echinulata præditis; poris germinationis 2. 1475

Hab. in foliis vivis Heliconiæ spec. Rio de Janeiro Brasiliæ (Ule).

83. **Uredo nigropuncta** P. Henn. Hedw. 1896, p. 254. — Maculis atris punctiformibus; soris dense gregariis hypophyllis, rarius epiphyllis, disciformibus, rotundatis, applanatis, atris, ca. $^1/_3$ mm. diametro; sporis subglobosis, ellipsoideis vel ovoideis, flavis vel flavobrunneis, fuscidulis, 22-28 × 20-26; episporio levi vel subverrucoso, 3-4 μ. crasso, pallide brunneo. 1476

Hab. in foliis Stanhopeæ spec. pr. Rio de Janeiro Brasiliæ (Ule).

84. **Uredo Epidendri** P. Henn. Hedw. 1896, p. 254. — Maculis bullatis, pallidis, zona sanguinea cinctis; soris amphigenis singulis vel aggregatis, pulvinatis, dein epidermide pallida vesiculosa tectis, dein erumpentibus, pallide brunneis; sporis oblongis, ovoideis, raro subglobosis, sæpe acutangulis, intus flavis granulatis, 22-32 × 16-26; episporio subhyalino usque ad 5 μ. crasso, sublevi vel minute punctato-verruculoso. 1477

Hab. in foliis et vaginis Epidendri spec. Prov. St. Catharina Brasiliæ (Ule).

85. **Uredo Dianellæ** Diet. Hedw. 1898, p. 213. — Soris hypophyllis, mediocribus, sparsis, epidermide rupta purpurea tectis; uredosporis obovatis v. ellipticis, 22-27 × 18-20, episporio flavidulo aculeato præditis. 1478

Hab. in foliis Dianellæ ensifoliæ ad Hongkong Sinarum (Dr. C. Klugkist).

86. **Uredo Schænocauli** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 438. — Soris erumpentibus, plerumque ellipticis, $^1/_2$–$^3/_4$ × $^1/_3$ mm., primo epidermide velatis, mox nudis, luteis; sporis globosis, 15 diam., sæpius obovatis v. ellipticis, 19-22 × 14-16, subtiliter aculeatis. 1479

Hab. in foliis Schœnocauli gracilis, Florida, Amer. bor. (Nash).

87. **Uredo Kyllingiæ** P. Henn. Hedw. 1896, p. 256. — Maculis fuscis confluentibus; soris amphigenis, rotundatis vel oblongis, primo pallidis dein ochraceis, minutis, confluentibus, epidermide rupta 1480

tectis; sporis ovoideis, ellipsoideis vel subglobosis, flavis, 15-21 × 13-18; episporio tenui, levi, castaneo.

Hab. in foliis vivis Kyllingiæ cæspitosæ in prov. St. Catharina Brasiliæ (Ule).

88. **Uredo cypericola** P. Henn. Pilz. Ostafr. p. 52. — Soris amphigenis, ellipticis v. striiformibus confluentibusque, diutius tectis, dein erumpentibus, epidermide lacerato-laciniata cinctis, flavo-brunneis; sporis ovoideis v. ellipsoideis, fusco-brunneis v. atrofuscis, aculeato-verrucosis, 18-24 × 15-18; episporio castaneo, 1-1 $^1/_2$ μ. crasso, aculeato-verrucoso. 1481

Hab. in foliis Cyperi sp. in Africa trop. (Volkens).

89. **Uredo Andropogonis-lepidi** P. Henn. Pilz. Ostafr. p. 52. — Soris amphigenis, elongatis v. linearibus, sparsis v. aggregatis, ochraceis, deinde pallescentibus, epidermidem longitudinaliter rumpentibus; sporis subglobosis, ovoideis v. oblongis, flavis v. aurantiacis, 15-28 × 15-23, sublevibus. 1482

Hab. in foliis Andropogonis lepidi in Africa trop. (Volkens).

90. **Uredo tonkinensis** P. Henn. Hedw. 1895, p. 11. — Maculis rufo-brunneis, amphigenis; soris hypophyllis, ellipticis v. elongatis, gregariis, diutius tectis, epidermidem longitudinaliter rumpentibus, rufo-brunneis; uredosporis ovoideis, subglobosis, ellipsoideis v. piriformibus, læte brunneis, minute verrucosis, 20-28 × 16-26; paraphysibus clavatis v. lagenariiformibus, hyalinis, 45-60 × 15-25. 1483

Hab. in foliis Andropogonis in Hanoï, Tonkin.

91. **Uredo Muhlenbergiæ** Diet. Bull. Cornell Univ. III, n. 1, 1897, p. 22. — Soris amphigenis, in maculis purpureis v. brunneis insidentibus, oblongis, ochraceo-brunneis; sporis ellipticis v. sphæricis, 26-32 × 24-30, brunneolo-luteis, spinulosis, 4 poris germinationis instructis. 1484

Hab. in foliis Muhlenbergiæ diffusæ, Auburn, Alabama Amer. bor.

92. **Uredo Ehrhartæ** Mc. Alp. Agr. Gaz. Sydney. VI, 1896, p. 6, fig. 27. — Soris minutis, ovalibus v. elongatis, linearibus, confluentibus, amphigenis, primo epidermide tectis, rubescenti-brunneis; uredosporis subglobosis v. ovalibus, aurantiacis, subtiliter echinulatis, 21-25 × 18-20. 1485

Hab. in foliis Ehrhartæ stipoidis, Victoria Australiæ.

93. **Uredo poiophila** Speg. Contr. Fl. Sierra Ventana, 1896, p. 84. — Maculis nullis vel pallescentibus indeterminatis; soris linearibus, 1486

brevibus, minutis, 0,5-1 mm. longis, 0,2-0,3 mm. latis, epidermide sæpius operculatim disrupta diu tectis, pallide ferrugineis; uredosporis globosis, 20-22 μ. diam., episporio levissimo hyalino tenuissimo donatis, endoplasmate oleoso-granuloso flavo farctis.

Hab. in foliis Poæ lanigeræ, Sierra de la Ventana, Argentina.

94. **Uredo pallida** Diet. et Holw. Bot. Gaz. 1897, p. 37. — Maculis 1487
luteis, interdum nullis; soris plerumque epiphyllis oblongis v. sublinearibus, sparsis v. confluentibus, siccis flavo-albis, epidermide rupta cinctis; sporis ovatis usque piriformibus, 20-26 × 13-18, membrana hyalina, breviter verrucosa.

Hab. in foliis vivis Tripsaci dactyloidis pr. urbem Mexico (Holway).

95. **Uredo abscondita** Fautr. Rev. Mycol. 1895, p. 171. — Soris 1488
luteis, elongatis, linearibus v. ellipticis; uredosporis globulosis, luteis, episporio crasso, 25-30 μ. diam., 2-appendiculatis (?).

Hab. in foliis Festucæ heterophyllæ in Gallia.

96. **Uredo alabamensis** Diet. Bull. Cornell Univ. III, n. 1, 1897, 1489
p. 22. — Soris plerumque hypophyllis, in epiphyllo solitariis, breve linearibus, epidermide rupta cinctis; sporis brunneis, apice intense coloratis, spinulosis, 4 poris germinationis instructis.

Hab. in foliis Sorghi vulgaris, Auburn, Alabama Amer. bor.

97. **Uredo Arundinariæ** Syd. in Uredineen n. 1239. — Maculis mi- 1490
nutis, irregularibus, flavis, demum pallide albido-griseis; soris hypophyllis, minutis, punctiformibus, carneis, fragmentis epidermidis laceratæ tectis, in senectute ad fuscum vergentibus, per totam superficiem sparsis; uredosporis plerumque perfecte globosis, 24–28 μ. diam., aculeatis, dilute flavis.

Hab. in foliis Arundinariæ Fortunei var. aureæ in horto botanico, Tokyo Japoniæ (Miyoshi). — Sori sæpe a *Darluca Filo* occupantur.

98. **Uredo Bambusarum** P. Henn. Hedw. 1896, p. 255. — Maculis 1491
fuscis vel atrobrunneis, amphigenis, rotundatis vel oblongis, punctiformibus, gregariis; soris amphigenis, pulvinatis, rotundatis vel elongatis, interdum substriiformibus, diutius epidermide fusca tectis; sporis subglobosis, ellipsoideis vel ovoideis, acutangulis, brunneis vel læte castaneis, 22-28 rarius 31 × 20-26; episporio castaneo, 3–5 μ. crasso, dense aculeato asperato.

Hab. in foliis Bambusæ spec. St. Catharina Brasiliæ (Ule).

99. **Uredo leviuscula** Diet. et Holw. Erythea 1894, p. 127. — Soris 1492

hypopyllis, sparsis, minutis, hemisphæricis, diu epidermide tectis. pseudoperidio arcte epidermidi adpressa inclusis; sporis valde irregularibus, plerumque piriformibus v. oblongis, sæpe angulosis, 30-40 × 15-22, membrana hyalina, levi v. sublevi tectis.

Hab. in fronde Polypodii californici, Mount Tamalpais Californiæ (Blasdale). — Sporæ e mutua pressione irregulares.

100. **Uredo Pteridis** Diet. et Holw. Erythea 1894, p. 127, Syll. XI, p. 228 (absque diagnosi!). — Soris hypophyllis, minutis, oblongis, secus venas primarias v. secundaria folii dispositis, in vivo flavis, dein pallescentibus; sporis ovoideis usque piriformibus, membrana hyalina echinulata, 30-45 × 18-27. 1493

Hab. in fronde Pteridis aquilinæ, Pasadena Californiæ (Mc Clatchie). — Ab *U. Polypodii* satis differt uredosporis echinulatis.

101. **Uredo Gymnogrammes** P. Henn. Hedw. 1895, p. 337. — Soris hypophyllis, gregariis, confluentibus, flavis, deinde pallescentibus, pulverulentis; sporis subglobosis v. ovoideis, flavescentibus v. hyalinis, verrucosis, 22-24 × 20-22. 1494

Hab. in foliis Gymnogrammes spec. pr. Blumenau Brasiliæ (Möller).

102. **Uredo Blechni** Diet. et Neg. Engl. Jahrb. XXII, p. 358. — Soris hypophyllis, maculis indeterminatis primo flavescentibus, deinde arescentibus insidentibus, punctiformibus, hemisphæricis, diu epidermide tectis; sporis ovoideis, 27-38 × 13-22, membrana achroa echinulata præditis. 1495

Hab. in foliis Blechni hastati pr. Concepcion Chile (Neger).

103. **Uredo Aneimiæ** P. Henn. Hedw. 1896, p. 255. — Soris hypophyllis gregariis sæpe nervos sequentibus, plerumque oblongis, fusco-ochraceis, epidermide velata tectis, dein confluentibus atrofuscis; sporis subglobosis, ellipsoideis vel ovoideis sæpe acutangulis, pallide flavis, punctatis, 18-30 × 15-28; episporio 3 μ. crasso, dense aculeato. 1496

Hab. in foliis vivis Aneimiæ tomentosæ var. fulvæ atque speciei indeterminatæ duobus locis in Brasilia (Ule).

CÆOMA Lenk — Syll. VII, p. 863, IX, p. 334, XI, p. 228.

1. **?Cæoma Pavoniæ** Diet. Hedw. 1897, p. 36. — Soris hypophyllis, epidermide recta tamquam pseudoperidio inclusis, aurantiacis; sporis angulatis, globosis vel ellipticis 22-30 × 20-25, membrana levi, dilute flava indutis. 1497

Hab. in foliis Pavoniæ spec. Rio de Janeiro Brasiliæ (Ule).

2. **Cæoma radiatum** Shirai, Bot. Mag. Tokyo, 1895, p. 243, t. VI, 1498
— Soris uniformiter sparsis, epiphyllis, rotundis, oblongis v. irregularibus, distinctis rarius confluentibus, margine dentato-radiatis, præcipue prima ætate; sporis rotundato-polygonalibus, isodiametricis v. oblongis, tenuiter verrucosis, aurantio-flavis, 20-66 μ. long.; spermogoniis elevato-conoideis, processibus filiformibus v. clavatis circa ostiolum præditis.

Hab. in foliis vivis Pruni Pseudo-Cerasi pr. Nikko Japoniæ. — Spermogonia confertiuscula in stipulis foliorum.

3. **Cæoma Negerianum** Diet. Engl. Jahrb. XXII, p. 357. — Cauli- 1499
colum, tumores modicos efficiens; soris sub cortice plicato prorumpentibus, irregularibus, interdum confluentibus; sporis catenulatis ellipticis, 35-50 × 23-36, membrana hyalina verrucosa præditis.

Hab. in caulibus Baccharidis elæoidis pr. Corral in Chile (Neger) et B. dracunculifoliæ pr. Orleans Brasiliæ (Ule).

4. **Cæoma punctato-striatum** Diet. et Neg. Engl. Jahrb. XXII, 1500
p. 357. — Spermogoniis abundantibus; soris oblongis v. striæformibus, confluentibus, in caulibus nervisque foliorum, aut epidermide fissa semitectis aut liberis, pulveraceis, aureis; sporis catenulatis, ellipticis, interdum utrinque acuminatis et fere fusiformibus, 35-52 × 22-30, longitrorsum punctato-striatis, dilute flavescentibus.

Hab. in caulibus foliisque Baccharidis glutinosæ pr. Concepcion aliisque locis in Chile (Neger).

5. **Cæoma Baccharidis** (Lév.) Diet et Neg. Engl. Jahrbüch. 1896, 1501
p. 355; *Uredo Baccharidis* Lév. Ann. d. Sc. Nat. III, 1846, p. 269; Syll. VII, p. 842 sub *U. Baccharidis* Speg. — Tumores lignosos globosos, fusiformes irregularesve variæ magnitudinis in ramis procreans; soris sub cortice plicato erumpentibus, irregularibus, sporis catenulatis, series longas formantibus, fusiformibus, 47-70 × 16-25, verrucis altis, dense obtectis.

Hab. in ramis Baccharidis rosmarinifoliæ, frequens in Chile. — Species adhuc cum *Uredine Baccharidis* Speg. confusa, a qua soris ramicolis et sporis catenulatis statim dignoscenda.

6. **Cæoma Cinerariæ** Rostr. Bot. Tidsskr. 1897, p. 41, 51. — Sporis 1502
ellipsoideo-polyhedricis, 23-26 × 18-20, rugulosis.

Hab. in foliis caulibusque Cinerariæ palustris in Jutlandia Daniæ. — Fructus basidialis hucusque ignotus.

7. **Cæoma aberrans** Peck, Bull. Torr. Bot. Club. 1895, p. 210. — 1503

Pustulis suborbicularibus, leviter elevatis, 1-2 $^1/_4$ mm. latis, primo membrana albida tectis, demum nudis; sporis in cumulo aurantiacis, subglobosis v. ellipticis, levibus v. sublevibus, 18-23 $^1/_2$ longis.

Hab. in cortice vivo Alni, Newfoundland, Amer. bor. (Waghorne).

8. **Cæoma conigenum** Pat. Journ. de Bot. 1896, p. 386, tab. IV. — 1504
Sporis ellipsoideis v. cylindraceis, raro subglobosis, verrucis elongatis confertisque tectis, deorsum levibus et attenuatis, obtusis, 25-40 × 12-20, pallide luteis.

Hab. in conis Pini spec. in Mexico.

USTILAGINACEÆ Tul.

Syll. VII, p. 451, IX, p. 282, XI, p. 230.

USTILAGO Pers. — Syll. VII, p. 451, IX, p. 282, XI, p. 230.

1. **Ustilago seminum** Juel. Oefversigt af Kongl. Vet.-Akad. Förhandl. 1894, n. 9, p. 491. — Massa sporarum umbrina; sporis globosis, 13 μ. diam. v. oblongis, fere 19 × 9, pallidis, crassiuscule papillatis. 1505

   Hab. in seminibus Arabidis petrææ in Scandinavia.

2. **Ustilago? Adoxæ** Bref. Unters. XII, pag. 119, tab. VII, fig. 12. — Soris in rhizomate tumido evolutis; sporis magnis, irregulariter globosis, 18-22 μ. diam., nigris; promycelio unicellulari. 1506

   Hab. in rhizomatibus Adoxæ Moschatellinæ pr. Münster Germaniæ.

3. **Ustilago Arenariæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 362. — Massa sporarum purpureo-nigra; sporis oblongo-ellipticis, opacis, 14-17 × 8-10, basi minute hyalino-appendiculatis. 1507

   Hab. in inflorescentiis Arenariæ congestæ, Colorado, Amer. bor. (Crandall).

4. **Ustilago Vriesiana** Vuill. Compt. rend. 1894, p. 933; Zeitschr. für Pflanzenkr. 1895, p. 113. — In parte inferiore trunci cecidia lobulata, foraminibus cæcis canaliculata, formans; acervulis sporarum irregularibus, inter cellulas corticis, liberis, crebris, e latere vel apice hypharum oriundis; sporis solitariis v. sæpius ad 20 strato gelatinoso conglomeratis, demum liberis, ovoideis, membrana fusca levi præditis, 7-9 × $5^1/_2$-7 μ. 1508

   Hab. in truncis deformatis Myrtacearum, ubi tumores gignit. Sporæ in Eucalypto amygdalina ad Amsterdam Hollandiæ observatæ; hyphæ steriles in pluribus Myrtaceis in horto Nanceiano Galliæ cultis.

5. **Ustilago Lagenophoræ** Mc. Alp. Agr. Gaz. Sydney, 1895, n. 11 Novbr. p. 7, fig. 19. — Soris in ovariis evolutis, pulverulentis, brunneis; sporis globosis v. ovalibus v. irregularibus, flavo-brunneis, verrucosis, 20 μ. diam. vel 19-22 × 16-20. 1509

   Hab. in ovariis Lagenophoræ emphysopi, Australia.

6. **Ustilago Welwitschiæ** Bres. in Sacc. Fl. mycol. Lus. p. 68. — Soris parvis, globosis, fuligineis, pulverulentis, e squamis erumpentibus; sporis fuscidulis, globosis, asperulis, $3^1/_2$-4 μ. diam. 1510

Hab. in squamis conorum Welwitschiæ mirabilis e Mossamedes Africæ allatæ in hort. bot. Coimbræ (Möller).

7. **Ustilago Moelleri** Bref. Unters. XII, p. 132, tab. VIII, fig. 4. — Soris fructus tumidos incolentibus; sporis atro-brunneis, asperulis, imperspicue areolatis, 10-12 μ. diam.; promycelio longo 3-septato, sporidiola gerente. 1511

Hab. in fructibus Polygoni hispidi pr. Blumenau Brasiliæ (Möller).

8. **Ustilago Lagerheimii** Bref. Unters. XII,p. 136, tab. VIII, 28–30. — Soris in interiore caulium ac petiolorum evolutis, pulverulentis, magnis, axes tumefacientibus, nigro-violaceis; sporis 9-11 μ. diam., nigro-violaceis; promycelio 3-septato. 1512

Hab. in caulibus et petiolis Rumicis spec. pr. Quito Æquatoriæ (Lagerheim).

9. **Ustilago domestica** Bref. Unters. XII, p. 135, tab. VIII, fig. 26-27. — Soris in caulibus et inflorescentiis evolutis, ubi tumores efficiunt; sporis globosis, 11-14 μ. diam., obscure violaceis, episporio distincte areolato præditis; promycelio 3-septato; sporidiolis oblongo-ovoideis, semper ad septa evolutis. 1513

Hab. in interiore caulium, petiolorum ac inflorescentiarum Rumicis domesticæ in Norvegia.

10. **Ustilago Koordersiana** Bref. Unters. XII, p. 132, tab. VIII, fig. 5-6. — Soris fructus incolentibus; sporis asperulis, non areolatis, brunneis, 8-11 μ. diam.; promycelio brevi, crasso, 4-cellulari; sporidiolis oblongis. 1514

Hab. in fructibus Poygoni barbati in Java (Koorders).

11. **Ustilago Allii** Mc Alp. Roy. Soc. Victoria 1894, p. 220. — Soris pustulas minutas obscure coloratas formantibus, venulis limitatis, primo epidermide tectis, dein pulverulentis, nigris; sporis obscure brunneis, sphæricis, echinulatis, muco gelatinoso obvolutis, 4–$4^1/_2$ μ. diam. 1515

Hab. in bulbis Allii spec., Victoria Australiæ.

12. **Ustilago cepanum** Glow. Mittheil. Naturw. Ver. Steiermark, vol. XXVIII, (1891) 1895, p. 5. — Soris bulbos incolentibus eosque omnino destruentibus; sporis globosis, rarius ovoideis v. oblongis, dilute brunneis, pellucidis, polygonalibus, 6-9 μ. diam., sub aqua visis levibus, sub alcohole verrucis minutissimis dense obsitis. 1516

Hab. in bulbis Allii Cepæ ad Polensak pr. Pettau Styriæ, — *U. Ornithogali* affinis, sed præcipue sporis minoribus diversa.

13. **Ustilago hyperborea** Blytt. Christiania Vid. Selsk. Forh. 1896, n. 6, p. 28. — Sporis globosis, 16.2 μ. diam., verruculosis; perianthio matricis non hypertrophiato. 1517

Hab. in fructibus Luzulæ hyperboreæ, Dovre Norvegia. — Sporæ minores, magis verrucosæ quam in *U. Luzulæ*.

14. **Ustilago subolivacea** P. Henn. Ann. del R. Istit. Bot. di Roma VI, Fasc. 2, p. 84. — Soris atro-olivaceis, pulverulentis dein floccosis, globosis, magnitudine seminis Pisi, ovaria destruentibus; sporis subglobosis vel subellipsoideis, primo pallidis dein olivaceo-brunneis, 5-8 × 5-7; episporio sublevi, v. minute verrucoso, crasso 1518

Hab. in ovariis Caricis ramosæ pr. Bidduma in Somalia. — *U. olivaceæ* (DC.) Tul. affinis, sed sporis atrioribus, globosis, minoribus distincta.

15. **Ustilago subnitens** Schroet. et P. Henn. Hedw. 1896, p. 215. — Soris pallide cinnamomeis intra ovaria ortis deinde pulverulentis; sporis sæpe subconglobatis, subglobosis vel ellipsoideis, 12-18 × 10-15; episporio flavo-brunneo subnitente, levi, ca. 2 μ. crasso. 1519

Hab. in ovariis Scleriæ pratensis pr. Rio de Janeiro Brasiliæ (Ule).

16. **Ustilago Coicis** Bref. Unters. XII. p. 110, tab. VI, fig. 39-41. — Soris in ovariis evolutis eaque valde deformantibus, sed parum tumefacientibus, pulverulentis, nigris; sporis brunneis, asperulis, ovalibus, 7-9 μ. diam.; promycelio 3-septato, septo infimo mox secedente; conidiis oblongo-fusiformibus. 1520

Hab. in ovariis Coicis lacrymæ, Simla Indiæ orient. (Barclay).

17. **Ustilago Schroeteriana** P. Henn. Hedw. 1896, p. 215. — Soris in spicis, eas destruentibus, atris, pulverulentis; sporis subglobosis vel late ellipsoideis, olivaceo-brunneis, intus punctulatis, 13-15 × 11-14; episporio atro-olivaceo, punctulato vel sublevi, ca. 1 μ. crasso. 1521

Hab. in foliis Paspali spec. in prov. St. Catharina Brasiliæ (Ule).

18. **Ustilago Paspali-dilatati** P. Henn. in Brefeld Unters. XII, p. 122, tab. VII, fig. 23-24. — Soris in inflorescentiis evolutis easque perfecte deformantibus destruentibusque, brunneo-nigris; sporis magnis, 12-15 μ. diam., levibus; promycelio 3-septato; sporidiolis pleurogenis, magnis. 1522

Hab. in inflorescentiis Paspali dilatati pr. Blumenau Brasiliæ (Moeller).

19. **Ustilago microspora** Schroet. et P. Henn. Hedw. 1896, p. 215. 1523
— Soris in paniculis floribusque innatis destruentibusque, vesiculosis, cuticula griseo-atra tectis, dein pulverulentis, olivaceis; sporis subglobosis vel ellipsoideis, levibus, pallide olivaceis vel fuscescentibus, 4-6 × $3^1/_2$-5, episporio levi.

Hab. in paniculis floribusque Paspali spec. in prov. St. Catharina Brasiliæ (Ule).

20. **Ustilago verrucosa** Schroet. Hedw. 1896, p. 214. — Soris in 1524
ovariis, vesiculoso-globosis, atris; sporis ellipsoideis vel subglobosis angulatis subolivaceis, 8-12 × 7-9; episporio incrassato pallide brunneo, dense verrucoso.

Hab. in ovariis Paspali distichi in prov. St. Catharina Brasiliæ (Ule).

21. **Ustilago Vestergreni** Sacc. et Syd. *Ustilago verrucosa* Vestergr. 1525
Jahreskatalog d. Wiener Krypt. Tauschanstalt 1897, p. 3, nec Schroet. — Soris atrobrunneis, inflorescentias nondum evolutas et folia superiora occupantibus, in strias elongatas secus foliorum nervos excurrentibus; sporis globosis, circ. 16 μ. in diam., fuscis, episporio crasso, grosse denseque verrucoso instructis.

Hab. in foliis et inflorescentiis vivis Baldingeræ arundinaceæ in Gotlandia Sueciæ. — An *Tilletia*?, sed a Tilletiis graminicolis descriptis bene diversa.

22. **Ustilago crypta** Mc Alp. Proc. of the Linn. Soc. of N. S. Wales. 1526
1897, p. 42 tab, II, fig. 19. — Soris atris, flores paniculasque inquinantibus ovariaque destruentibus, non pulverulentis nec nudis; sporis globosis v. subellipticis, luteis v. flavo-brunneis, episporio levi crasso instructis, 8-10 μ. diam. vel $8^1/_2$ × $5^1/_2$ metientibus.

Hab. in floribus Panici bicoloris, N. S. Wales Australiæ (Maiden). 1895

23. **Ustilago heterospora** P. Henn. Pilz. Ostafr. p. 48. — Soris in- 1527
flatis, bullatis, ovaria deformantibus, olivaceo-cinereis, diutius tectis, dein pulverulentis; sporis magnitudine variis globosis vel subglobosis, verrucoso-aculeatis, subflavo-olivaceis, dein fuscescentibus, 10–15 et 15-26; episporio plus minus incrassato, dense aculeato-granulato.

Hab. in floribus Panici maximi in Africa trop. (Holst), Natal (Wood) et Sansibar (Hildebrandt).

24. **Ustilago pustulata** Tracy et Earle, Bull. Torr. Bot. Club. 1895, 1528

p. 175. — Soris in ovariis evol utis v. in caulibus bullato-inflatis, in foliis vaginisque distorsionos irregulares efformantibus, obscure brunneis, membrana straminea diu tectis, 2 ½–7 ½ cm. diam.; sporis obscure brunneis v. fuscis, subglobosis v. ovalibus, tenuissime tunicatis, leviter echinulatis, 9 × 7-8.

Hab. in ovariis, paniculis, foliis vaginisque Panici proliferi, Mississippi, Amer. bor.

25. **Ustilago Panici-leucophæi** Bref. Unters. XII, p. 114, tab. VI, fig. 42. — Soris spicam totam replentibus eamque in massam pulveraceam transformantibus ac omnino destruentibus, nigris; sporis globosis, minutis, 5-7 μ. diam.; promycelio longo, 3-septato, septo infimo mox secedente; sporidiolis minutissimis, anguste fusiformibus. 1529

Hab. in spicis Panici leucophæi pr. Rio de Janeiro Brasiliæ (Ule).

26. **Ustilago Panici-latifolii** P. Henn. Hedw. 1896, p. 216. — Soris in staminibus germinibusque, atris, pulverulentis; sporis pallide olivaceis, dein fuscis, subglobosis v. ellipsoideis, 6-8 μ.; episporio subfusco, minute verrucoso v. sublevi. 1530

Hab. in floribus Panici latifolii in prov. St. Catharina Brasiliæ (Ule).

27. **Ustilago Panici-frumentacei** Bref. Unters. XII, p. 103, tab. VI, fig. 5-10. — Soris in ovariis evolutis eaque valde tumefacientibus, atris, pulverulentis: sporis globosis, nigro-brunneis, asperulis, 7-9 μ. diam.; sporidiolis oblongo-ovoideis, copiosis; promycelio 1-septato. 1531

Hab. in ovariis Panici frumentacei, Himalaya Indiæ orient. (Barclay).

28. **Ustilago vesiculosa** P. Henn. Hedw. 1896, p. 51. — Soris paniculas implentibus et tumefacientibus, saccatis, bullato-inflatis, subglobosis. 3-5 μ. diam., cuticula alutacea tectis, vertice subulato-elongatis; sporis subglobosis, ovoideis v. ellipsoideis, intus punctatis, ochraceis, 8-11 × 7-9; episporio atro-brunneo, granulato v. minute verrucoso-punctato. 1532

Hab. in paniculis Panici spec. duobus locis in Brasilia (Ule). — *U. Panici-miliacei* (Pers.) affinis.

29. **Ustilago ugandensis** P. Henn. Pilz. Ostafr. p. 48. — Soris atro-olivaceis, epidermide tectis, dein cinctis, pulverulentis, ad apicem culmorum in rhachidibus floribusque, rhachidem curvam contortamque efformantibus; sporis subglobosis, sæpe acutangulis, fusco-olivaceis, sublevibus, punctulatis, 6-8 × 5-7. 1533

Hab. in spicis Panici in Africa trop.

30. **Ustilago pertusa** Tracy. et Earle, Bull. Torr. Bot. Club. 1895, p. 175. — Soris in ovariis evolutis, duris, compactis, atris, demum pulvinatis; sporis minutis, globosis, 5-7 μ. diam.; episporio tubulis pororum prominentibus irregularibus verrucosis ornato. 1534

Hab. in ovariis Setariæ macrochætæ, Queensland (Bailey).

31. **Ustilago Cenchri** Lagh. Bull. Boiss. 1895, p. 62. — Soris aterrimis, pulverulentis, spicam inclusam destruentibus; sporis angulato-ovalibus vel angulato-rotundatis, 8-12 μ. diam.; episporio atro-brunneo, levi, pellucido. 1535

Hab. in spicis Cenchri in Æquatoria.

32. **Ustilago funalis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 458; *Ustilago Sporoboli* Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 282 nec Tracy et Earle. — Soris culmos infestantibus, tenuibus, olivaceis, continuis; sporis globosis, dilute brunneis, 5 μ. diam. 1536

Hab. in culmis Oryzopsidis cuspidatæ et Sporoboli cryptandri, Colorado Amer. bor.

33. **Ustilago Stenotaphri** Mc Alp. Agr. Gaz. Sydney. 1895, n. 11, Novbr. p. 7, fig. 20. — Soris foliicolis v. caulicolis; massa sporarum nigra, compacta, continua; sporis brunneis, globosis, ovalibus v. irregulariter sphæricis, levibus, 16 μ. diam. vel 16-19 × 11-14. 1537

Hab. in foliis et caulibus Stenotaphri dimidiati, Victoria Australiæ.

34. **Ustilago Arundinellæ** Bref. Unters. XII, p. 108, t. VI, f. 19-23. — Soris caryopsides ex toto replentibus, nigro-brunneis, pulverulentis; sporis globosis, levibus, brunneis, 8-9 μ. diam., promycelio 4-cellulari; sporidiolis oblongo-ovoideis. 1538

Hab. in caryopsidibus Arundinellæ spec., Calcutta Indiæ orient. (Cunningham).

35. **Ustilago Aristidæ-cyananthæ** Bref. Unters. XII, p. 102, t. VI, fig. 1-4. — Soris fructus ex toto replentibus, compactis; sporis subglobosis non verrucosis, 7-8 μ. diam., brunneis; sporidiolis oblongo-ovoideis, ad septa nec non ad apicem evolutis. 1539

Hab. in fructibus Aristidæ cyananthæ in India orient. (Cunningham).

36. **Ustilago Bornmülleri** P. Magn. Verhandl. z. b. Ges. Wien 1896, p. 427, tab. VII. fig. 1-5. — Soris culmicolis, pulverulentis, epidermide pseudoparenchymatosa hyalina tectis; sporis globosis, 7 1/2 μ. diam., nigris, levibus. 1540

Hab. in culmis Aristidæ caloptilæ in ins. Bahrein in Sinu Persico (Bornmueller). — *U. Ischæmi* affinis.

37. **Ustilago Schlechteri** P. Henn. Hedw. 1895, pag. 325. — Soris intra paniculas, eas omnino deformantibus destruentibusque, primo tectis, dein liberis, atris, oblongis; sporis globosis v. ellipsoideis, atro-olivaceis, minute aculeato-verrucosis, 11-14 = 10-12; episporio atro, aculeato, ca. $^1/_2$ μ. crasso. 1541

Hab. in culmis et paniculis Sporoboli spec. in Transvaalia (Schlechter).

38. **Ustilago Sporoboli** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 211. — Ovaria occupans eaque in massam duram, virescentem, compactam, 2-3 mm. diam. permutans; sporis obscure brunneis, ovalibus v. subglobosis, episporio tuberculis late conicis dense tecto præditis 12-15 μ. 1542

Hab. in ovariis Sporoboli juncei in Mississippi Amer. bor.

39. **Ustilago Dactyloctænii** P. Henn. Pilz. Ostafr. p. 48. — Soris in spiculis, eas ex toto destruentibus, atro-violaceis, primo epidermide tectis, dein pulverulentis, corniformibus; sporis globosis v. subglobosis, levibus, læte brunneis, 10-14 μ.; episporio levi, 1,5-2 μ. crasso. 1543

Hab. in inflorescentia Dactyloctænii ægyptiaci, Sansibar, Africa.

40. **Ustilago sparsa** Underw. Bull. Torr. Bot. Cl. 1897, p. 86. — Soris olivaceis, ovaria incolentibus tumefacientibusque, cuticula velatis, 1-3 mm. diam.; sporis ovalibus, distincte echinulatis, circiter 7-9 μ. longis. 1544

Hab. in ovariis Dactyloctænii ægyptiaci, Alabama Amer. bor. (Earle).

41. **Ustilago Cynodontis** P. Henn. Fungi afr. 1, p. 369 (ut var.), Brefeld Unters. XII, p. 105. tab. VI, fig. 11-16. — Soris inflorescentias incolentibus easque omnino destruentibus, nigris; sporis solitariis non obscuris, globosis, sublevibus, 7-9 μ. diam.; promycelio 2-septato, ad septa et ad apicem sporidiola oblongo-ovoidea gerente. 1545

Hab. in inflorescentiis Cynodontis Dactyli in Abyssinia et India orient.

42. **Ustilago quitensis** Lagh. Bull. Boiss. 1895, p. 62. — Soris atro-olivaceis, pulverulentis, paniculam evolutam destruentibus; sporis ovalibus vel rotundatis, 6-10 μ. diam., episporio atro-violaceo, distincte subtiliter echinulato, pellucido. 1546

Hab. in paniculis Gynerii argentei in Æquatoria.

43. **Ustilago Cathestechi** P. Henn. Hedw. 1897, p. 212. — Soris atris, ovaria incolentibus, inclusis; sporis globosis, atro-olivaceis, 16-21 μ., episporio crasso, verrucis obtusis ornato. 1547

Hab. in foliis vivis Cathestechi procumbentis in Mexico.

44. **Ustilago Ulei** P. Henn. Hedw. 1895, p. 88. — Soris foliicolis, amphigenis, striiformibus, confluentibus, primo epidermide cinerea tectis, dein liberis, atro-brunneis v. atro-olivaceis; sporis subglobosis, interdum ellipsoideis, angulatis, rufo-brunneis, intus granulosis, 8-10 × 7-9; episporio subcastaneo, levi, ca $^1/_2$ μ. crasso. 1548

Hab. in foliis vivis Chloridis spec. Goyaz Brasiliæ (Ule).

45. **Ustilago ornata** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 175. — Soris in ovariis evolutis, atris, pulverulentis, 20-30 mm. diam.; sporis subglobosis, echinulis crassis, prominentibus densissime ornatis, circiter 12 × 15. 1549

Hab. in ovariis Leptochloæ mucronatæ, Mississippi, Amer. bor.

46. **Ustilago Boutelouæ-humilis** Bref. Unters. XII, p. 116, tab. VII, fig. 13. — Soris inflorescentias incolentibus easque in massam pulveraceam nigram transformantibus; sporis magnis, 20-25 μ. diam., episporio levi subnigro præditis; promycelio 2-septato, sporidiola non gerente, sed in filamentum excrescente. 1550

Heb. in inflorescentiis Boutelouæ humilis pr. Quito Æquatoriæ (Lagerheim).

47. **Ustilago filifera** Nort. Trans. Acad. of Sc. of St. Louis. VII, 1896, n. 10, p. 237, tab. XXVIII. — Soris foliis v. culmis insidentibus, globosis, $^1/_2$-2 mm. latis, 1-12 mm. longis; sporis subglobosis, angulosis, obscure flavo-brunneis, opacis, in cumulo nigris, minute echinulatis, granulosis, 13-15 μ. diam. 1551

Hab. in foliis culmisque Boutelouæ racemosæ et B. oligostachyæ, Kansas Amer. bor.

48. **Ustilago Hieronymi** Schrœt. Hedw. 1896, p. 213. — Soris culmivel foliicolis, pulvinatis, vesiculosis, oblongis, cuticula grisea vel atro-plumbea tectis, 2-4 mm. longis, usque ad $1^1/_2$ mm. crassis; sporis atris, subglobosis vel breve ellipsoideis, 11-15 × 8-13; episporio crasso, atro-castaneo, subpunctato. 1552

Hab. in culmis et foliis Boutelouæ ciliatæ, Prov. de Salto Argentinæ (Hieronymus, Lorentz).

49. **Ustilago minor** Nort. Trans. Acad. of Sc. of St. Louis. VII, 1896, n. 10, p. 238, tab. XXVIII. — Soris foliicolis, globosis, $^1/_2$-2 mm. 1553

latis, 1-10 mm. longis; sporis globosis, 8-9 μ. diam., minute echinulatis, granulosis, obscure flavo-brunneis.

Hab. in foliis Bouteloueæ hirsutæ, Kansas Amer. bor. — *U. filiferæ* valde affinis, sed sporis minoribus diversa.

50. **Ustilago Poarum** Mc Alp. Roy. Soc. Victoria 1894, p. 220. — Soris foliicolis, pulverulentis, nigris; sporis globosis v. irregulariter sphæricis, flavo-brunneis, echinulatis, 12 ½ μ. diam. vel 14 × 12 ½. 1554

Hab. in foliis Poæ annuæ, Victoria Australiæ.

51. **Ustilago Mulfordiana** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 362. — Soris in ovariis evolutis eaque destruentibus, subnigris; sporis udis globosis v. subglobosis, 10-14 μ. diam., episporio minute asperulo, siccis interdum oblongis v. breve cylindraceis et 10-14 × 6-8 metientibus. 1555

Hab. in ovariis Festucæ spec., Idaho, Amer. bor. (Mulford).

52. **Ustilago strangulans** Issatschenko, Parasit. Pilze Gouv. Cherson. 1896, p. 225. — Partes floriferas destruens; soris atro-fuscis, primo cuticula albida tectis, dein erumpentibus; sporis globosis, ellipsoideis, rarius angulatis, 10-12 × 8-10, episporio brunneo-olivaceo, aculeolato. 1556

Hab. in inflorescentia Eragrostidis poæoidis, Cherson Rossiæ.

53. **Ustilago Arthraxonis** Pat. Journ. de Bot. 1897, p. 346. — Soris pulverulentis nigris, glumis tectis, sacculo tenui nigrescente e cellulis hyalinis ovoideis v. globulosis levibus facile secedentibus circiter 8-12 μ. diam. formato inclusis; sporis olivaceo-brunneis, 11-13 μ. diam., ovoideis v. rotundatis, subtiliter asperulis. 1557

Hab. in spicis Arthraxonis spec. in Tonkin.

54. **Ustilago insularis** P. Henn. Hedw. 1896, p. 51. — Soris paniculas totas implentibus destruentibusque, pro parte cuticula membranacea tectis, atris; sporis subglobosis, pallide olivaceis, 6-8 μ.; episporio levi, olivaceo, crasso. 1558

Hab. in inflorescentiis Tricholænæ insularis, Campo Bello Brasiliæ (Ule). — *U. Ischæmi* Fckl. atque *U. Panici-leucophæi* Bref. videtur proxima.

55. **Ustilago Sacchari-ciliaris** Bref. Unters. XII, p. 109, tab. VI, fig. 26. — Soris in ovariis evolutis eaque in massam pulveraceam transformantibus; sporis magnis, globosis, 9-11 μ. diam., obscure luteis; promycelio 3-septato, longo, tenui; sporidiolis fusiformibus. 1559

Hab. in ovariis Sacchari ciliaris, Calcutta Indiæ orient. (Cunningham).

56. **Ustilago Andropogonis-annulati** Bref. Unters. XII, p. 109, tab. VI, fig. 27-31. — Soris in ovariis evolutis, pulverulentis; sporis globosis, atro-brunneis, 8-9 μ. diam.; promycelio 1-septato, apice sporidiola non gerente, sed in filamentum excrescente. 1560

Hab. in ovariis Andropogonis annulati, Calcutta Indiæ orient. (Cunningham).

57. **Ustilago Andropogonis-tuberculati** Bref. Unters. XII, p. 108, tab. VI, fig. 24-25. — Soris in ovariis evolutis, compactis, duris, nigris; sporis inæqualibus, subglobosis, 10-13 μ. diam., atro-brunneis; promycelio filiformi, 3-septato, cellulis maximis; sporidiolis oblongis 1561

Hab. in ovariis Andropogonis tuberculati, Simla Indiæ orient. (Barclay).

58. **Ustilago bicornis** P. Henn. Hedw. 1896, p. 50. — Soris paniculas incolentibus tumefacientibusque, cuticula alutacea tectis, dein ruptis, atrobrunneis, pulverulentis; sporis subglobosis, ovoideis v. oblongis, acutangulis, intus punctulatis, olivaceis, 8-13 × 7-9, episporio minute punctato. 1562

Hab. in inflorescentiis Andropogonis bicornis, Campo Bello Brasiliæ (Ule). — *U. tumefacienti* P. Henn. externa facie affinis.

59. **Ustilago culmiperda** Schroet. Hedw. 1896, p. 212. — Soris culmicolis, diutius inclusis, atris; sporis globosis vel late ellipsoideis, 15-20 vel 22 × 13-17, episporio atro, crasso levi. 1563

Hab. in culmis Andropogonis bicornis Prov. St. Catharina Brasiliæ (Ule).

60. **Ustilago occulta** P. Henn. Hedw. 1897, p. 212. — Soris caulicolis inclusis, eas vix deformantibus, atris; sporis subglobosis, ovoideis vel ellipsoideis, atro-brunneis vel atris, 6-8 × 6-7; episporio atro, minute verrucoso. 1564

Hab. in culmis Andropogonis spec. pr. St. Catharina Brasiliæ (Ule).

61. **Ustilago leucostachys** P. Henn. Hedw. 1896, p. 50. — Soris in paniculis inclusis, eas omnino destruentibus, primo cuticula alutacea tectis, dein pulverulentis atris; sporis subglobosis v. ellipsoideis, fusco-olivaceis, punctulatis, 13-15 × 8-13, episporio atro olivaceo, minute verrucoso v. sublevi. 1565

Hab. in inflorescentiis Andropogonis leucostachyi, Itatiaia Brasiliæ (Ule).

62. **Ustilago tumefaciens** P. Henn. Pilz. Ostafr. p. 48. — Inflore- 1566

scentiam corniformiter tumefaciens et deformans; soris flavo-fuscescentibus, dein erumpentibus, pulverulentis; sporis subglobosis, polygonis, flavis v. brunneo-castaneis, 8-12 × 7-10; episporio granulato-verrucoso.

Hab. in inflorescentia Andropogonis rufi in Africa trop. (Volkens).

63. **Ustilago monilifera** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 362. — Soris fuscis; sporis concatenatis, catenulis parallelis, subglobosis, subcubicis v. subangulosis, ex hyalino brunneis, 8-12 μ. longis, minutissime echinulatis. 1567

Hab. in ovariis Heteropogonis contorti, Arizona, Amer. bor. (Toumey).

64. **Ustilago tonglinensis** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 175. — Soris in ovariis evolutis, nigris; sporis globosis, obscure brunneis, fortiter et crasse echinulatis, 9-11 μ. diam. 1568

Hab. in ovariis Ischæmi ciliaris, Tonglin Singapore (Ridley).

65. **Ustilago Washingtoniana** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 57. — Soris linearibus, 1-20 mm. longis, primo epidermide plumbea tectis, dein pulverulentis, subnigris; sporis globosis, 8-10 μ. diam., olivaceo-brunneis, minute echinulatis, nucleis minutis numerosis repletis. 1569

Hab. in foliis graminis cujusdam, Washington, Amer. bor. *U. longissimæ* valde affinis.

66. **Ustilago Ficuum** Reich.-Sacc. Syll. VII, p. 457. — est *Sterigmatocystis Ficuum* (Reich.) P. Henn. Hedw. 1895, p. 84.

ANTHRACOIDEA Bref. Unters. XII. p. 144. — *Ustilagini* affinis, sed germinatio aliena.

1. **Anthracoidea Caricis** (Pers.) Bref. l. c. *Ustilago Caricis* Pers.
2. **Anthracoidea subinclusa** (Koern.) Bref. l. c. p. 146. *Ustilago subinclusa* Koern.

CINTRACTIA Cornu. — Syll. VII, p. 480, IX, p. 285, XI, p. 233.

1. **Cintractia leucoderma** (Berk.) P. Henn. Hedw. 1895, p. 335. (syn. *C. Krugiana* P. Magn.) — Var. **usambarensis** P. Henn. Pilz. Ostafr. p. 48. — Soris cylindraceis, nigris, $1^1/_2$-2 cm. longis, 14-16 mm. latis; sporis majoribus, dense verrucosis, obscurioribus, 15-17 × 14-16. 1570

Hab. in Rhynchospora aurea in Africa trop. (Stuhlmann).

2. **Cintractia axicola** (Berk.) Cornu-Sacc. Syll. VII, pag. 480. — 1571
Forma **spicularum** Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII, Afd. III, n. 10, 1897, p. 7. *C. leucoderma* (Berk.) P. Henn. f. *utriculicola* P. Henn. Hedw. 1896, p. 57. — Soris singulis peridio ovoideo v. globoso, 2-2 1/2 mm. longo, 1 1/2-2 mm. lato, albescente sublevi, apice irregulariter fisso instructis; strato prolifero basali, placentiformi axim spiculæ occupante.

Hab. in spicis Rhynchosporæ aureæ etc., Brasilia.

3. **Cintractia caricicola** P. Henn. Hedw. 1895, p. 325. — Soris atris, 1572
subglobosis, duris, in axillis bractearum, ca. 1-1 1/2 mm. diam.; sporis globosis v. subglobosis, primo hyalinis, dein fusco-brunneis, tandem atris, punctulatis, 9-11 v. 12-14 μ. diam.; episporio vix 1/2 μ. crasso; filamentis subhyalinis instructis.

Hab. in bracteis Caricis spatheæ in Transvaalia (Schlechter). — A *Cintractia Caricis* (Pers.) Magn. videtur diversa.

4. **Cintractia Crus-galli** (Tracy et Earle) P. Magn. Ber. D. Bot. Ges. 1573
1896, p. 391; *Ustilago Crus-galli* Tracy et Earle Bull. Torr. Bot. Club. 1895, p. 175. — Soris paniculas et nodos superiores incolentibus eosque omnino destruentibus, pustulas interdum 1 cm. diam. efformantibus; massa sporarum pulveracea, nigra, primitus membrana grisea tecta; sporis ovalibus v. subglobosis, fuscis, valide echinulatis, 9-10 × 11-13.

Hab. in paniculis et nodis Panici Cruris-galli, Utah et Washington Amer. bor.

TILLETIA Tul. — Syll. VII, p. 481, IX, p. 286, XI, p. 283.

1. **Tilletia Airæ** Blytt, Christiania Vid. Selsk. Forh. 1896, n. 6, p. 31. 1574
— Sporis globosis aut subovalibus, 25-27 μ. diam., episporio hyalino circiter 2 1/2 μ. crasso, areolis pentagonis subregularibus, circiter 4 μ. latis instructo.

Hab. in fructibus Airæ cæspitosæ in ins. Reno pr. Tromsö (B. Esmark). — A *T. decipiente* differt sporis majoribus et obscurioribus. *T. cerebrina* Ell. et Ev. differt areolis episporii irregularibus cerebriformibus.

2. **Tilletia Anthoxanthi** Blytt, Christiania Vid. Selsk. Forh. 1896. 1575
n. 6, p. 31. — Sporis globosis, raro subovalibus, sordide atro-brunneis, hyalinis, reticulatis, 24-27 μ. diam., episporio 2 1/2 μ. crasso, areolis vulgo pentagonis, 4-5 1/2 μ. latis instructo.

Hab. in fructibus Anthoxanthi odorati pr. Throndhjem, Norvegia (H. Bryn). — *T. Rauwenhoffii* F. de Waldh. affinis, sed

sporis obscurioribus, areolis minoribus margineque hyalino minus manifesto instructis diversa.

3. **Tilletia Barclayana** (Bref.) Sacc. et Syd. *Neovossia Barclayana* Bref. Unters. XII, p. 170. tab. X, fig. 22-29. — Soris in ovariis evolutis eaque tumefacientibus, pulverulentis, nigris; sporis nigro-brunneis, globosis, 17-22 μ. diam., exappendiculatis, areolatis; sporidiolis filiformibus. 1576

Hab in ovariis Penniseti triflori, Simla Indiæ orient. (Barclay).

4. **Tilletia corona** Scrib. Bull. Torr. Bot. Cl. 1896. p. 210. — Ovaria occupans eaque in massam atram, corniculatam, interdum 1 cm. longam, membrana inclusam permutans; sporis magnis, globosis, 22-26 μ., obscure brunneis, maturitate dense opacis, sed episporio hyalino, 2-3 μ. crasso tectis; areolis retis minutis, in sporis maturis valde obscuris. 1577

Hab. in ovariis Homalocenchri oryzoidis, virginici, lenticularis, Panici sanguinalis et virgati variis locis Amer. bor. — Reliquiæ hypharum fertilium in sporis non maturis sæpe persistunt et pedicellum simulant. Differt a speciebus affinibus sporis obscure brunneis et opacis, areolis retis obscurioribus.

5. **Tilletia horrida** Takahashi, Tokyo Botan. Magaz. 1896, Pt. II, p. 20. — Soris ovaria incolentibus, glumis tectis, pulverulentis, nigris; sporis globosis, irregulariter rotundatis v. interdum late ellipticis, $18^1/_2$-23 μ. diam. vel $22^1/_2$-26 × 17-22, episporio obscure olivaceo-brunneo, opaco, aculeis conspicuis, hyalinis v. dilute coloratis apice acutis, basi irregulariter polygonalibus, plus minusve curvulis, $2^1/_2$-4 × $1^1/_2$-2 μ. metientibus dense tecto; sporidiolis filiformibus v. acicularibus, varie curvatis, 38-53 μ. longis. 1578

Hab. in ovariis Oryzæ sativæ duobus locis in Japonia.

6. **Tilletia ? irregularis** Pazschke, Hedw. 1895, p. (101). — Soris primo tectis, dein liberis, striæformibus, nigris, epidermide fissa cinctis; sporis fuscis, versiformibus, globosis v. oblongis, levibus, episporio circ. 2 μ. crasso præditis, 12-19 × 9-10. 1579

Hab. in foliis vivis Andropogonis sp. in Brasilia (Ule).

7. **Tilletia Sesleriæ** Juel, Oefersigt af K. Vet.-Akad. Förhandl. 1894, n. 9, p. 494. — Sporis irregulariter subglobosis, atro-bruuneis, 25-28 μ. diam., tenuiter anguste reticulatis. 1580

Hab. in foliis Sesleriæ cæruleæ, ubi strias longas nigras efficit, insula Gotlandia Sueciæ. — *T. olidæ* proxima.

8. **Tilletia Ulei** Schroet. et P. Henn. Hedw. 1896, p. 218. — Soris 1581

nigris ovaria destruentibus; sporis subglobosis vel ellipsoideis, olivaceo-brunneis, 15-20 × 14-18, episporio atrobrunneo 1.5-2 μ. crasso dense verrucoso.

Hab. in fructibus Paspali scrobiculati in prov. St. Catharina Brasiliæ (Ule).

9. **Tilletia zonata** Bref. Unters. XII, p. 161, tab. X, fig. 3-7. — 1582
Soris flores ex toto replentibus, nigris, pulverulentis; sporis 15–18 μ. diam., episporio luteo-brunneo areolato præditis, zona pellucida cinctis; sporidiolis filiformibus.

Hab. in floribus Sporoboli ligularis, Quito Æquatoriæ (Lagerheim).

ENTYLOMA De Bary — Syll. VII, p. 487, IX, p. 286, XI, p. 233.

1. **Entyloma microsporum** (Ung.) Wint., Syll. VII, p. 493. — Var. 1583
pygmæum Allesch. in Allescher et P. Hennings, Pilze aus dem Umanakdistrikt. 1897, p. 1. — Sporulis versiformibus, irregularibusve, globosis, oblongis, sæpe polygonalibus, magnitudine varia, ca. 8 μ. diam., vel 12-18 μ. longis, grosse 1-guttulatis, hyalinis vel pallide flavescentibus.

Hab. in foliis languescentibus Ranunculi pygmæi Karajak-Nunatak Groenlandiæ (Vanhöffen).

2. **Entyloma Corydalis-luteæ** Vogl. Bull. Soc. bot. Ital. 1896, p. 36. 1584
— Soris plerumque rotundatis, in maculis luteo-brunneolis dispositis, explanatis, 1-2-4 mm. latis, prima ætate conidiorum strato alto cæspitoso tectis, numerosis; sporis globosis, laxe congregatis, 7 μ. diam., episporio crasso, pallide luteo, punctulis irregularibus undulatis ornato, initio tegumento gelatinoso, crasso, hyalino cincto, jam in matrice viva germinantibus; promycelio apice sporidiola filiformia, hyalina, 35-40 × 2 μ. generante.

Hab. in foliis et caulibus vivis Corydalis luteæ in Italia et in Helvetia.

3. **Entyloma cissigenum** P. Henn. Pilz. Ostatr. p. 49. — Maculis am- 1585
phigenis, gregariis, rotundatis, circiter 2 mm. diam., sæpe confluentibus, atris; sporis globosis, intus fuscis v. minute viridulis subgranulatis, 18-21 μ.; episporio hyalino, levi, ca. 3-5 μ. crasso.

Hab. in foliis vivis Cissi in Africa trop. (Volkens).

4. **Entyloma arnicale** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 57. 1586
— Maculis amphigenis, in pagina foliorum superiore obscure ferrugineis, inferiore pallidioribus, subangularibus, 2–4 mm. diam., pallide luteo-limitatis; soris subepidermicis; sporis sphæricis, ex hya-

lino pallide brunneis, 10-12 μ. diam.; episporio levi, $1^1/_2$-2 μ. crasso.

Hab. in foliis Arnicæ cordifoliæ, Idaho Amer. bor. (Piper). — Status conidiof. est *Ramularia arnicalis* Ell. et Ev.

5. **Entyloma Bellidis** Krieger Hedw. 1896, p. (145). — Maculis albicantibus v. luteolis, globosis, $^1/_2$-3 mm. latis, sæpe confluentibus, interdum totum folium occupantibus; conidiis acicularibus, parum curvulis, hyalinis, 22-40 × $1^1/_2$; sporis globosis, hyalinis v. luteolis, 9-14 μ. latis; episporio $1^1/_2$ μ. crasso. 1587

Hab. in foliis Bellidis perennis pr. Königstein Saxoniæ.

6. **Entyloma Bidentis** P. Henn. Pilz. Ostafr. p. 49. — Soris sub epidermide nidulantibus, maculis rotundatis, flavis, dein confluentibus, fuscis; sporis subglobosis, brunneis, levibus v. intus granulatis, 10-15 × 9-14, episporio levi, 1-$1^1/_2$ μ., castaneo. 1588

Hab. in foliis vivis Bidentis pilosi in Africa trop. (Volkens).

7. **Entyloma Plantaginis** Blytt, Christiania Vid. Selsk. Forh. 1896, n. 6, p. 32. — Sporis globosis, vulgo 8 μ., rarius 18 μ. diam., glabris, levibus; conidia desunt. 1589

Hab. in foliis Plantaginis mediæ in Norvegia.

8. **Entyloma Brefeldi** Krieger, Hedw. 1896, p. (145). — Maculis, ut in aliis speciebus hujus generis, nullis; sporis hyalinis v. subluteolis, globosis, $10^1/_2$-15 μ. latis; episporio levi, $1^1/_2$ μ. 1590

Hab. in foliis Phalaridis arundinaceæ in Saxonia.

9. **Entyloma Camusianum** P. Har. Journ. de Bot. 1896, p. 299. — Soris maculas utrinque conspicuas, numerosas, sparsas vel gregarias etiamve confluentes et totam foliorum superficiem occupantes, rotundatas vel irregulares, explanatas v. levissime superne tumefactas, non marginatas, cinereo-fuscas, 1-5 mm. (pro singulis) latas, efformantibus; sporis crebrioribus et totam utraque epidermide parenchymaticam partem suffusam (ita ut sub lente atro-nigricans et quasi carbonacea videatur) foventibus, densissime aggregatis, olivaceis, difformibus, sed pro maxima parte angulatis, episporio crassiusculo, subfusco præditis, 8-16 (plerumque 12 μ.) crassis. 1591

Hab. in foliis vivis Phlei arenarii in Gallia occid.

10. **Entyloma speciosum** Schroet. et P. Henn. Hedw. 1896, p. 220. — Soris striiformibus sæpe confluentibusque atris sub epidermide nidulantibus; sporis conglobatis subglobosis vel late ellipsoideis, acutangulis, castaneis vel atro-olivaceis, intus punctulatis, 8-12 × 7-10; episporio atro-olivaceo, levi. 1592

Hab. in foliis Panici spec. Prov. St. Catharina Brasiliæ (Ule).

11. **Entyloma Oleandræ** P. Henn. Hedw. 1895, pag. 326. — Soris striiformibus, amphigenis, ca. 1 cm. longis, 2 mm. latis, atris v. atro-violaceis; sporis subglobosis, raro ellipsoideis, minute granulatis, subhyalinis, 8-12 × 6-10; episporio subfuscidulo. 1593

Hab. in foliis Oleandræ articulatæ, Natal (Wood).

SCHRŒTERIA Wint. — Syll. VII, p. 550, IX, p. 288, XI, p. 235.

1. **Schrœteria Delastrina** (Tul.) Wint. — Syll. VII. p. 500. — **var. reticulata** Cocconi, in Rend. Accad. Sc. Bol. 1898, p. 219 cum 2 tab. — Sporis 16-20 μ. diam., cœruleo-brunneis, episporio cristulis reticulatim dispositis prædito. 1594

Hab. parasitica in area placentaria et funiculo seminum Veronicæ sp., prob. V. præcocis circa Parisios.

SIRENTYLOMA P. Henn. Hedw. 1895, p. 319 (Etym. *seira* series et *Entyloma*). Mycelium intercellulare; sporæ catenulatæ, dein secedentes fuscæ, episporio crasso, levi.

1. **Sirentyloma Salaciæ** P. Henn. l. c. — Maculis amphigenis, irregularibus, dein confluentibus et totum folium nigrificantibus; sporis primo catenulatis moniliformibus, dein secedentibus subconglobatis, ovoideis, ellipsoideis v. subglobosis, sæpe acutangulis, 8-13 × 7-11; episporio ca. 1 $^1/_2$–2 μ. crasso, fusco-brunneo, levi. 1595

Hab. in foliis Salaciæ spec. in ditione fluvii Corumba, Goyaz Brasiliæ (Ule).

ENTORRHIZA C. Weber — Syll. VII, 497, IX, 287.

1. **Entorrhiza Solani** Fautr. Rev. Mycol. 1896, p. 11 cum tab. — Sporis sphæricis, subpiriformibus v. ovalibus, sæpe angulosis, 10 μ. diam. 1596

Hab. in tuberibus putridis Solani tuberosi in Gallia.

2. **Entorrhiza scirpicola** (Correns) Sacc. et Syd., *Schinzia* Corr. Hedw. 1897, pag. 40. — Sporis ellipticis, flavis, 16-20 × 11-14, episporio lineolis adscendentibus spiralibus longioribus v. brevioribus obsito. 1597

Hab. in radicibus Scirpi pauciflori, inflationes radicum efficiens, in Helvetia.

TOLYPOSPORIUM Woronin — Syll. VII, 501, XI, 235.

1. **Tolyposporium Cenchri** Bref. Unters. XII, p. 156, t. IX, fig. 31-34. — Soris in inflorescentiis evolutis easque destruentibus, pulveru- 1598

lentis, nigris; glomerulis sporarum laxis; sporis brunneolis, non verrucosis, 8-10 μ. diam.; promycelio 8-loculari; sporidiolis ad septa evolutis.

Hab. in inflorescentiis Cenchri echinati, Rio de Janeiro Brasiliæ (Moeller).

2. **Tolyposporium Chloridis** P. Henn. Pilz. Ostafr. p. 49. — Soris atris, firmis, bullatis, undulato-plicatis, rugulosis, interdum confluentibus; glomerulis sporarum firmis, varia magnitudine, subglobosis, acutangulis, e 3-5 sporis compositis, 10-20 × 8-15, fusco-brunneis v. atris; sporis acutangulis, sublevibus, 6-10 μ. 1599

Hab. in fructibus Chloridis abyssinicæ in Africa trop. (Volkens).

3. **Tolyposporium Anthistiriæ** Cobb ap. Mc Alp. Arrang. Austral. Fungi 1893, p. 202. — Massa sporarum nigra; sporis compositis, h. e. ex cellulis brunneis, crasse tunicatis, nunc vicenis v. tricenis, nunc pluries centenis constantibus. 1600

Hab. in inflorescentia Anthistiriæ ciliatæ, N. S. Wales, Australia.

4. **Tolyposporium minus** Schroet. Hedw. 1896, p. 218. — Soris in germinibus, subglobosis vix deformantibus, cuticula cinerea tectis; glomerulis sporarum 60-120 × 60-70, subfirmis, atris; sporis 7-15 × 7-9; episporio olivaceo-brunneo, levi. 1601

Hab. in fructibus Panici spec. in prov. St. Catharina Brasiliæ (Ule).

5. **Tolyposporium Penicillariæ** Bref. Unters. XII, p. 154, tab. IX, fig. 35-40. — Soris in quaque spica solitariis, ovariicolis, bullam magnam globosam efformantibus, nigris; glomerulis sporarum variæ magnitudinis ac formæ, plerumque subglobosis v. ovoideis; sporis solitariis dilutioribus, 10-12 μ. diam., vix distincte verrucosis, flavo-brunneis; promycelio gracili, 8-loculari; sporidiolis copiosissimis, ad septa evolutis. 1602

Hab. in inflorescentiis Penicillariæ spicatæ, Simla Indiæ orient. (Barclay).

6. **Tolyposporium Volkensii** P. Henn. Pilz. Ostafr. p. 49. — Soris ad germina pustulatis, submesenteriformibus, atris, subgelatinosis?, rugulosis, circ. 5-8 mm. diam.; glomerulis subglobosis v. irregulariter acutangulis, firmis, 15-28 μ. diam., e 3-15 sporis compositis, plus minus fuscis; sporis subglobosis, ovoideis, oblongis, e mutua pressione acutangulis, fusco-brunneis, minute granulatis, 5-11 μ. 1603

Hab. in ovariis Sorghorum cultorum in Africa trop. (Volkens).

TOLYPOSPORELLA Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 16. (Etym. a *Tolyposporium*, cui affine genus). — Glomeruli e cellulis (sporis) numerosis, episporio crasso præditis, dense agglutinatis constituti; promycelium ramosum, septatum; sporidiola pleurogena, solitaria.

1. **Tolyposporella Chrysopogonis** Atk. l. c. — Soris pulverulentis, 1604
in vaginis culmorum evolutis; glomerulis nigris, magnis, irregularibus, ovalibus, sphæricis, oblongis v. ellipticis, 50-175 × 40-80; sporis in massa agglutinatis, irregulariter globosis v. subangulosis, episporio crasso obscure brunneo præditis, 10-15 μ. diam.; promycelio subinde ramoso, septato, delicato; sporidiolis pleurogenis, solitariis, subclavatis v. fusoideis, curvulis v. inæquilateralibus, interdum subsigmoideis, 9-12 × 2-2 1/2.

Hab. in vaginis Chrysopogonis nutantis, Auburn, Alabama Amer. bor.

DOASSANSIA Cornu — Syll. VII, p. 502, IX, p. 288, XI, p. 235.

1. **Doassansia Ulei** Schrœt. Hedw. 1896, p. 220. — Soris caulicolis, 1605
pulvinatis vel subcylindraceo-pustulatis, 4-10 × 1,5-2 mm. diam., epidermide tectis; glomerulis sporarum compactis, subglobosis vel ellipsoideis acutangulis, plerumque 22-46 × 20-30, pallide brunneis; sporis 5-7 μ. latis, compressis; episporio pallide brunneo, levi.

Hab. in caulibus Callitriches spec. Prov. St. Catharina Brasiliæ (Ule). — An ad *Sorosporium* ducendum?

2. **Doassansia affinis** Ell. et Dearness, Bull. Torr. Bot. Club. 1895, 1606
p. 364. — Soris hypophyllis, pustuliformibus, globosis v. ellipticis, 200-300 μ. longis, obscuris, supra collabentibus, gregariis, elongatis; sporis globosis v. ellipticis, 8-10 μ. longis; episporio tenui.

Hab. in foliis Sagittariæ variabilis, Canada, Amer. bor. (Dearness).

3. **Doassansia intermedia** Morot, Journ. de Bot. 1895, p. 471. — 1607
Pustulis rotundatis, obscure brunneis, numerosissimis, gregariis, non confluentibus, magnam foliorum partem occupantibus; soris sphæricis, 80-135 μ. diam., cellulis corticalibus luteo-brunneis, membrana leviter incrassata; sporis plerumque sphæroideis, 8-10 μ. diam., episporio tenui, levi, pallide luteo donatis.

Hab. in foliis Alismatis ranunculoidis in Gallia.

4. ?**Doassansia Liliæ** P. Henn. Hedw. 1896, p. 220. — Soris amphigenis, subpustuliformibus, fuscescentibus in maculis flavescentibus, oblongis; sporis globosis, subacutangulis, atris, 6-8 μ.; episporio levi. 1608

Hab. in caulibus Liliæ subulatæ, Sierra Achala de Cordoba Argentinæ (Hieronymus).

BURRILLIA Setchell — Syll. XI, p. 236.

1. **Burrillia globulifera** J. Davis, Bot. Gaz. XXII, 1896, p. 414. — Soris globosis v. ellipticis, obscure brunneis v. nigris, 250-450 μ. diam.; sporis 1-3-seriatis, obscure brunneis, dense compactis, irregulariter polyhedricis, 6-9 μ. diam.; promycelio 2 . diam., 30-80 μ. longo, brunneolo, prominentiis numerosis minutis rotundatis munito; sporidiolis 4-8 v. pluribus in quoque verticillo, terminalibus, verticillatis, cylindraceis, 12-18 × 3. 1609

Hab. in culmis Glyceriæ fluitantis, Wisconsin, Amer. bor.

THECAPHORA Fing. — Syll. VII, p. 507, IX, p. 289, XI, p. 237.

1. **Thecaphora Hieronymi** Schrœt. Hedw. 1896, p. 221. — Soris in ovariis, pustulatis, ellipsoideis, ca. 2 mm. longis, castaneis; glomerulis tri-vel quadrangulis, 20-30 vel 40 μ. diam., plerumque 3-6 raro 2-3 vel 8-sporis compositis; sporis conglobatis, unilateraliter verrucis pyramidalibus acutiusculis usque ad 1 μ. longis ornatis, 13-15 μ. latis; episporio pallide castaneo. 1610

Hab. in fructibus Richardsoniæ stellaris pr. Montevideo Uruguay (Arechavaleta).

SOROSPORIUM Rud. — Syll. VII, p. 511, IX, p. 288, XI, p. 237.

1. **Sorosporium Holstii** P. Henn. Pilz. Ostafr. p. 49. — Soris inflorescentias inficientibus easque tumefacientibus, atris, pulverulentis; glomerulis forma magnitudineque variis, subglobosis v. oblongis, atris, e sporis numerosis compositis, 50-90 μ. diam.; sporis subglobosis v. ellipsoideis, acutangulis, granuloso-verrucosis, flavescentibus v. fusco-brunneis, 10-15 × 8-13. 1611

Hab. in inflorescentia Themedæ Forskalei in Africa trop. (Holst).

2. **Sorosporium Montiæ** E. Rostr. Botan. Tidskr. XX, 1896, p. 129. — Soris atris; glomerulis fuscis, subglobosis v. irregularibus, 60-80 μ. diam., e sporis numerosis constitutis; sporis breviter elli- 1612

psoideis, 5-8 μ. longis, brunneis, levibus, difficile secedentibus; promycelio filiformi, septato.

Hab. in foliis caulibusque Montiæ minoris in Dania.

3. **Sorosporium Rhynchosporæ** P. Henn. Hedw. 1896, p. 222. — Soris 1613
omnino inclusis, ovaria destruentibus, atris; glomerulis duris, subglobosis vel oblogis, aterrimis, 25-30 μ. diam.; sporis subglobosis oblongis acutangulis, plerumque triangularibus, fusco-olivaceis, intus punctulatis, 8–13 × 7–10, episporio atro-olivaceo, 1-2 μ. crasso, minute verrucoso vel sublevi.

Hab. in fructibus Rhynchosporæ glaucæ, Rio de Janeiro Brasiliæ (Ule).

4. **Sorosporium Cenchri** P. Henn. Hedw. 1896, p. 221. — Soris in 1614
floribus, vesiculoso-inflatis, cuticula alutacea tectis, dein pulverulentis, atris; glomerulis subglobosis vel irregulariter oblongis, 20-45 μ. diam., atris; sporis subglobosis vel ellipsoideis, sæpe acutangulis, olivaceo-brunneis intus punctulatis, 8-10 × 6-9; episporio brunneo, levi.

Hab. in spicis Cenchri echinati Prov. St. Catharina Brasiliæ (Ule).

5. **Sorosporium maranguensis** P. Henn. Pilz. Ostafr. p. 49. — Soris 1615
aterrimis, pulverulentis, subglobosis v. irregularibus, e sporis numerosis compositis, 35-65 μ. diam.; sporis subglobosis, acutangulis, intus subgranulatis, fusco-brunneis, 8-12 × 7-11; episporio levi, atro-fusco, incrassato.

Hab. in inflorescentia Andropogonis lepidi in Africa trop. (Volkens).

6. **Sorosporium cuneatum** Shofield in Webb. App. Cat. Fl. Nebr. 1616
1892. — Idem est ac posterius *S. Solidaginis* Ell. et Ev., Sacc. Syll. XI, p. 237. — Cfr. Bull. Torr. Bot. Club. 1895, p. 363.

UROCYSTIS Rab. — Syll. VII, p. 515, IX, p. 290, XI, p. 237.

1. **Urocystis Anemones** (Pers.) Schroet.-Sacc. Syll. VII, p. 518. — 1617
Forma **Aconiti** Vogl. Bull. Soc. bot. Ital. 1896, p. 35. — Soris atris, sparsis, majusculis, bullatis per epidermidem rima longitudinali dehiscentem erumpentibus; sporis centralibus, sphæroideis, fuscis, 20-22 × 20, externis 12-14 μ. diam.

Hab. in foliis caulibusque Aconiti Lycoctoni in Helvetia et in Italia.

2. **Urocystis Hieronymi** Schroet. Hedw. 1896, p. 218. — Soris in 1618
ramulis vel pedunculis, eos bullam curvatam, c. 3 cm. longam,

1 ½ cm. crassam efformantibus, cuticula c. 1 mm. crassa, ochracea, rugulosa tectis; glomerulis ellipsoideis, 22-40 × 22-30; sporis centralibus singularibus, globosis vel ellipsoideis, 16-26 × 15-20, episporio castaneo, levi; sporis peripheric is 7-12 × 6-8, pallide brunneis.

Hab. in caulibus Solani spec. pr. Santa Rosa Boliviæ (Hieronymus, Lorentz).

SCHIZONELLA Schroet. — Syll. VII, p. 500, IX, p. 288.

1. **Schizonella melanogramma** (DC.) Schroet.-Sacc. Syll. VII, p. 500. 1619
— Var. **Elynæ** Blytt, Christiania Vid. Selsk. Forh. 1896, n. 6, p. 33. — Sporæ minores, 6 μ., et colore lætiores quam in typo.

Hab. in Elyna spicata, Dovre, Norvegia.

TESTICULARIA Klotzsch. — Syll. VII, p. 150.

1. **Testicularia Cyperi** Klotzsch-Sacc. Syll. VII, p. 150. — Var. 1620
minor Juel, Bih. K. Sv. Vet. Akad. Handl. XXIII. Afd. III, n. 10, p. 9, extr. — Soris ovoideis v. subglobosis, siccis 3-6 mm. longis, 2-4 mm. crassis, furfuraceo-verrucosis; sporarum glomerulis subglobosis, 70-90 μ. diam.; sporis maturis fuscis, plerumque ca. 15 μ. diam., membrana levi, obsolete tantum punctata.

Hab. in spicis Rhynchosporæ, Rio Grande do Sul, Porto Alegre Brasiliæ (Malme).

2. **Testicularia Leersii** Cornu, Ann. d. sc. VI, sér. t. 15, 1883. — 1621
Ovarium totum *Leersiæ* occupans tumefactum, amylo destitutum et germine; sporis 8-10 μ. diam. coacervatis, adglutinatis, mycelio compacto intertextis sorosque 120-280 μ. diam. efformantibus, isthmo brevissimo conjunctim adhærentibus, dein rupto, in formam stellatam vel undulatam transformatis.

Hab. in Leersia hexandra in Algeria (Letourneux). — Ob soros in mycelio compacto nidulantes et sporarum fabricam facile typicum genus.

KUNTZEOMYCES P. Henn. in litt. *Didymochlamys* P. Henn. Hedw. 1897, p. 246 nec Hook. (Etym. a cl. botanico Kuntze et *myces* fungus). — Massa sporarum? in floribus nidulans, sacculo membranaceo inclusa; sporæ? continuæ, membrana duplici tectæ, coloratæ. Genus omnino dubium.

1. **Kuntzeomyces ustilaginoidous** P. Henn. l. c. — Soris in infl e- 1622
scentiis nidulantibus et paulo superantibus, sacculo pallido tenui,

dein apice lacerato inclusis; sporis subglobosis v. late ellipsoideis, 25-31 × 23-28, exosporio levi, cinnamomeo v. atro; endosporio primo subhyalino, dein pallide olivaceo v. fusco, levi v. punctulato, 2-3 μ. crasso, intus granuloso, 16-25 × 14-23.

Hab. in inflorescentiis Rhynchosporæ spec. pr. Blumenau Brasiliæ (Ule).

USTILAGINOIDEA Bref. Unters. XII, p. 194 (Etym. ab *Ustilago*, cui affinis). — E promycelio oriuntur sporidiola hyalina et conidia (tilletiæformia) pleurogena sessilia colorata.

1. **Ustilaginoidea Oryzæ** (Pat.) Bref. l. c. p. 194, t. XI, fig. 22-29, 1623
Tilletia Oryzæ Pat. Bull. Soc. Myc. 1897, p. 124, tab. X, fig. 2, Sacc. Syll. IX, p. 286.

Hab. ad caryopsides Oryzæ sativæ in Japonia et India or.

2. **Ustilaginoidea Setariæ** Bref. l. c. pag. 202. — Pulverulenta, in 1624
ovariis evoluta eaque valde tumefaciens, viridi-nigra; sporis globulosis v. ovoideis, magis verrucosis quam in præcedente.

Hab. in ovariis Setariæ Cruris-Ardeæ pr. Blumenau Brasiliæ (Möller).

3. **Ustilaginoidea mossambicensis** P. Henn. Engl. Jahrb. XXIII, 1625
p. 539. — Sclerotiis globosis, verrucosis, tuberculatis, atro-olivaceis v. atris, 3-4 mm. diam., intus duris, firmis, albidis; conidiis subglobosis, dense granuloso-verrucosis, atris, $4^1/_2$-6 μ.

Hab. in ovariis Arundinellæ Mozambik, Afr. or. (Peters).

Hypostomaceæ Vuill.

in Bull. Soc. sc. Nancy 1896, p. 13, extr.

Familia, ex auctore, *Ustilaginaceis* affinis, nobis adhuc dubia videtur æque ac genera, quibus constat. Hæc non parum formas cladosporiaceas quasdam imitantur, saltem ex iconibus.

MERIA Vuill. l. c. p. 20 tab. I, (Etym. a cl. silviculturæ professori gallico E. Mer).

1. **Meria Laricis** Vuill. l. c. p. 21. 1626

Hab. in foliis adhuc vivis, quæ necat; Laricis, Vosges Galliæ.

HYPOSTOMUM Vuill. l. c. p. 42, tab. II, (Etym. *hypo* sub et *stoma*).

1. **Hypostomum Flichianum** Vuill. l. c. p. 43. 1627

Hab. in foliis vivis Pini austriacæ et P. montanæ in silvis Yonne Galliæ.

PHYCOMYCETÆ De Bary

Syll. VII, p. 181, IX, p. 335, XI, p. 239.

Fam. 1. Mucoraceæ De By.

CHOANOPHORA Cunn. — Syll. IX, 339.

1. **Choanophora Simsoni** Cunningh. Ann. of the Roy. Bot. Gard. 1628
Calcutta, VI Pt. I, 1895, c. tab.

Hab. in Ipomœa rubro-cœrulea et Zinnia elegante parasitans, in infusionibus saprophytica, India orient.

MUCOR Mich. — Syll. VII, p. 190, IX, p. 335, XI, p. 239.

1. **Mucor agglomeratus** Schostak. Ber. Deutsch. Bot. Ges. 1897, p. 226 1629
tab. VII. — Cæspitibus densis, pallide griseis, 2-3 cm. altis; hyphis sporangiferis confertis, septatis, rectis, copiose ramosis; ramulis variis, aliis racemosis, longis, sæpe repetite ramulosis, aliis fasciculatis, plerumque brevissimis, crebre septatis; sporangiis in ramulis longis subtiliter echinulatis, 250-500 μ. diam., columella magna, 120 × 100, piriformi v. obovoidea, contextu hyalino v. rarius citrino, tunica deliquescente prædita; sporangiis in ramulis brevibus, variæ magnitudinis, 7-20 μ. diam., subtiliter incrustatis, subhyalinis, columella hemisphærica, interdum nulla; sporis oblongis, rarius leniter curvulis, circiter $10^1/_2 \times 7$; zygosporis non visis.

Hab. in lacte, pane corruptis etc. in Sibiria.

2. **Mucor angarensis** Schostak. Ber. Deutsch. Bot. Ges. 1897, p. 473, 1630
tab. XXIII, fig. 5-7. — Hyphis sporangiferis decumbentibus, $^1/_2$-2 cm. longis, cæspitulum humilem nigrum formantibus, 10-20 μ. crassis, sympodiiformiter ramosis, ramis apice arcuatis ac omnibus sporangiferis; sporangiis globosis, nigris, 120-200 μ. diam., pendulis, tunica nigra, granulis calcareis incrustata, non deliquescente, in partes magnas secedente præditis; columella magna, conica v. piriformi, schistacea, 120 × 60, levibus; sporis subæqualibus, globosis, $10^1/_2$-14 μ. diam., membrana duplici tectis, solitariis griseis, in cumulo schistaceis; gemmis ac zygosporis non visis.

Hab. in pane udo, corrupto, in Sibiria.

3. **Mucor De-Baryanus** Schostak. Ber. Deutsch. Bot. Ges. 1897, p. 473, tab. XXIII, fig. 1-4 et 8. — Hyphis sporangiferis initio tantum erectis, cæspitulum densum dædaleum griseo-nigrum formantibus, monopodiiformiter ramosis, septatis, post maturitatem sporangiorum arcuatis, propullulantibus; sporangiis globosis minutis, 60-120 μ. diam., nigris, tunica impellucida, granulis calcareis incrustata, deliquescente; columella conica, 100-170 × 60-140, hyalinis, levibus; sporis subglobosis, flavo-griseis, $5\,^1/_4$-$10\,^1/_2$ μ. diam.; gemmis copiosis, ut in *Mucore racemoso;* zygosporis non visis. 1631

Hab. in pane udo, corrupto, in Sibiria.

4. **Mucor heterosporus** Fisch.—Syll. XI, p. 239. — Var. **sibiricus** Schostak. Ber. Deutsch. Bot. Ges. 1897, pag. 472, tab. XXIII, fig. 9-13. — Hyphis sporangiferis initio erectis, demum decumbentibus, cæspitulum initio album dein brunneum formantibus, 2 cm. longis, copiose sympodiiformiter ramosis, septatis; sporangiis subnigris, globosis, 60 μ. diam., sæpe subsessilibus, ramis interdum brevissimis, apice basali rotundatis, facile deciduis, tunica granulis calcareis incrustata, pellucida, in fragmenta secedente; columella 30-40 × 20, conica v. supra globosa, interdum asymmetrica, hyalina, levi; sporis griseis, plerumque globosis v. anguloso-globosis, 5-10 μ. diam., etiam irregularibus; gemmis orculæformibus, globosis v. irregulariter quadratis; zygosporis non visis. 1632

Hab. in pane udo, corrupto, in Sibiria.

5. **Mucor racemosus** Fres.-Sacc. Syll. VII, p. 192 — Var. **brunneus** Morini, Malpighia 1896, p. 88. — Filamentis mycelialibus inflationibus destitutis; hyphis sporangiferis plerumque parum ramosis, multo minus longis quam in specie; sporangiis saturate luteo-brunneis; chlamydosporis sphæricis, raro breviter ellipticis. 1633

Hab. in putrescentibus pr. Messina Siciliæ.

6. **Mucor prolifer** Schostak. Ber. Deutsch. Bot. Ges. 1896, p. 260, tab. XVIII. — Hyphis sporangiferis primo pumilis, dein erectis et 6-7 cm. longis, denique septatis, plus minusve repetite ramosis; sporangiis variis, aliis globosis, griseis, 300-400, rarius 500 μ., impellucidis, incrustatis, columella magna, 150-300 × 100-180, late piriformi levi, facile deliquescente, sporis ovalibus, hyalinis, substantia mucosa obvallatis, $17\,^1/_2 \times 7\,^1/_2$, valde guttulatis; sporangiis aliis 20-200 μ. diam., nigris, pellucidis, leviter incrustatis, columella varia; sporis oblongis, 7-$17\,^1/_2 \times 3$-$7\,^1/_2$, non guttulatis. 1634

Hab. in pane et fimo equino putrescentibus in Sibiria.

7. **Mucor irkutensis** Schostak. Ber. Deutsch. Bot. Ges. 1897, p. 472. — 1635

Hyphis sporangiferis erectis, undulato-arcuatis, cæspitulum densum circiter 9 cm. altum efformantibus, non vel sympodiiformiter ramosis, 9-10 cm. longis, 100 μ. crassis, parce septatis, membrana levi hyalina præditis; sporangiis æqualibus, globosis, 1 mm. diam., initio luteis, dein griseo-luteis, in maturitate interdum supra lacteis, tunica impellucida, valde incrustata in fragmenta secedente; columella magna, conica, cylindrica v. piriformi, 270-400 × 200-280, aurantiaca, episporio levi hyalino; sporis plasmatis fragmentis ac globulis oleosis immixtis, æqualibus, 28 × 10 $^1/_2$, solitariis dilute luteis, in cumulo flavo-brunneis, substantia mucosa obvallatis; zygosporis gemmisque non visis.

Hab. in fimo caprearum in Sibiria.

8. **Mucor obducens** Sacc. et Syd. Sic dicendus est *Mucor lateritius* Cke. et Mass. in Syll. IX, p. 336, quum exstet anterior *Mucor lateritius* Link in Syll. VII, p. 201. 1636

PHYCOMYCES Kunze — Syll. VII, p. 204.

1. **Phycomyces Pirottianus** Morini, Malpighia 1896, p. 89, tab. III, fig. 8-12. — Hyphis sporangiferis circiter 2 $^1/_4$-3 $^1/_2$ cm. longis, membrana tenuiter olivacea præditis; sporangiis globulosis maturitate nigrescentibus, 0,10-0,42 mm. diam.; membrana plerumque diffluente usque ad parvi annuli residuum circa columellam ovoidalem persistentis; sporis ellipticis, luteo-pallidis, 12–18 μ. longis; chlamydosporis inter formam globulosam et cylindroidem variantibus, membrana glabra; zygosporis ovoidalibus, pariete nigro, glabro vel paucis et tenuissimis protuberantiis prædito, circiter 0,12 mm. diam., tectis subtili involucro, constituto laxo contextu hypharum exilium et nigrescentium, quæ a suspensoribus germinantur; numerosæ et breves hyphæ ad extremitatem bifidæ in superficie involucri eriguntur. 1637

Hab. in stercore equino, Messina Siciliæ.

HELICOSTYLUM Corda — Syll. VII, p. 209.

1. **Helicostylum cyaneum** Pound et Clements, Bot. Surv. of Nebraska. IV Lincoln. 1896, p. 5. — Sporangiolis numerosis, 30-50, globosis v. piriformibus, in pedicello flexili nutantibus, chalybeis, 35-45 μ. diam., 15–35-sporis; columella nulla; sporis ellipsoideis v. ovatis, levibus, cœruleis, denique pallide cœruleis, 12–15 × 8–10. 1638

Hab. in fimo equino, sociis *Piptocephalo* et *Circinella*, pr. Lincoln, Nebraska Amer. bor.

THAMNIDIUM Link. — Syll. VII, p. 211, IX, p. 337, XI, p. 240.

1. **Thamnidium Arbuscula** (Otth) Sacc. *Melidium* Otth Bern. Mittheil. 1865, p. 172, — Hyphis stipitiformibus, continuis, elatis, 0,5 mm. alt., superne ramosis, ramis alternis patentibus, repetito-dichotomis, ramulis omnibus pariter in angulum circ. grad. 120 divergentibus, dichotomiis regulari modo successive paullo minus inter se distantibus; ramulis extrem. brevibus sporangia acrogena gerentibus globosa hyalina, sporis quaternis, ellipsoideis, vix coloratis fœta. 1639

Hab. in crustis lichenum ad ligna faginea coacervata in Helvetia.

RHIZOPUS Ehrenb. — Syll. VII, p. 212, XI, p. 240.

1. **Rhizopus necans** Mass. Kew Bull. 1897, p. 89 c. tab. — Hyphis sterilibus continuis conglomeratis intricatis candidis; hyphis sporangiferis erectis simplicibus vel interdum furcatis, 3-6 fasciculatis, continuis, flavo-brunneis, 20–25 μ. diam. circa 2 mm. altis basi stolones longos emittentibus; sporangiis globosis circ. 250 μ. diam. brunneo-nigris, opacis, glabris; columella subglobosa; sporis subglobosis, minutissime striatis, 5-6 μ. diam. pallide olivaceo-brunneis; zygosporis doliiformibus, 100-120 μ. diam., hispidis, subnigris. 1640

Hab. parasitice in bulbis Liliorum in Japonia.

ABSIDIA Van Tiegh. — Syll. VII, p. 214, IX, p. 337, XI, p. 240.

1. **Absidia Tieghemi** Deckenb. Scripta botan. Petersb. V, 1896, p. 245. — Stolonibus mycelicis arcuatis nigro-coloratis; hyphis sporangiferis 3(2-5) fasciculatis continuis erectis ad apicem septatis; sporangiis piriformibus usque ad septum nigro-coloratis; columella cylindrico-hemisphærica, cœruleo-nigrescente, apophysata, apice papillam minutissimam 0,03 mm. gerente; sporis sphæroideis, 3 μ. diam., hyalinis. 1641

Hab. cum Hypomycete in Lactario delicioso putrescente, in Rossia merid.

Genus **Herpocladium** Schroet. (Syll. VII, p. 225) sec. auctorem ipsum in Engler u. Prantl, Natürl. Pflanzenfam. p. 130, **Herpocladiella** et species **H. circinans** Schroet. dicatur, quum iam exstet subgenus *Herpocladium* inter Hepaticas (subg. *Jungermanniæ*).

SYNCEPHALIS Van Tiegh. et Le Monn. — Syll. VII, 227.

1. **Syncephalis pycnosperma** Thaxt. Bot. Gaz. 1897, p. 11, tab. II, fig. 32-38. — Hyphis vegetativis gracilibus, nodulosis, anastomo- 1642

santibus; hyphis sporangiferis brevibus, septo basali vulgo constrictis, apice vesiculoso-inflatis ibique sporophora secundaria numerosa clavata rarius furcata circiter 24 μ. longa gradatim expansa 2-vel 4-lobata gerentibus, 300-350 μ. longis, basi 25 μ., apicem versus 17 μ. latis; sporangiis 3-sporis; sporis subrectangularibus v. angulosis, crasse tunicatis, in maturitate muco obvallatis, 13-16 × 7-8.

Hab. in fimo murino et ovino, New Haven et Cambridge Amer. bor.

2. **Syncephalis tenuis** Thaxt. Bot. Gaz. 1897, p. 12, tab. II, fig. 22-31. 1643
— Hyphis sporangiferis basi septatis, elongatis sursum attenuatis, supra abrupte in capitulum inflatis, 500-700 μ. longis, basi 7, apice 4-5 μ. latis; sporangiis 6 v. pluribus consociatis, orbiculatim dispositis, bisporis; sporis subcylindraceis v. asymmetrice ovalibus, truncatis v. rotundatis, 20-25 × 7 vel 25-27 × 10-11.

Hab. ad Sphagnum in laboratorio in America boreali.

3. **Syncephalis Wynneæ** Thaxt. Bot. Gaz. 1897, p. 11, tab. I, fig. 5-12. 1644
— Alba, demum pallide straminea; hyphis sporangiferis erectis, 400-475 μ. longis, rectis, basi vulgo septatis, rhizoidiferis, sursum attenuatis, apice vesiculoso-inflatis ibique sporophora secundaria clavata apice inflata 25 μ. longa gerentibus; sporangiis circiter 12 associatis, bisporis; sporis irregulariter elongato-ovalibus, plerumque subasymmetricis, in maturitate muco obvallatis, 16-19 × 6.

Hab. ad Wynneam macrotidem, North Carolina Amer. bor.

DISPIRA Van Tiegh. — Syll. IV, p. 77.

1. **Dispira americana** Thaxt. Bot. Gaz. 1895, p. 513, tab. XXXV. 1645
— Hyphis sterilibus ramosis, repentibus; fertilibus solitariis, erectis, septatis, hyalinis, 1 mm. altis, 10-12 μ. diam., denique plus minusve regulariter pseudodichotome ramosis; ramulis extremis curvulis, sterilibus v. fertilibus, capitula sphærica 35-45 μ. diam. gerentibus; sterigmatibus numerosis, e duabus cellulis compositis; catenulis sporarum ex apice sterigmatum orientibus; sporis brevibus, 3 × 1; zygosporis subsphæricis, 35-65 μ. diam., pallide brunneis, leviter asperulis, partim processibus rosulatis leniter asperulis digitatis circumdatis.

Hab. in stercore murino, parasitice in hyphis Mucoraceæ cujusdam, Ohio, Amer. bor.

Fam. 2. **Entomophthoraceæ** Now.

ENTOMOPHTHORA Fres. — Syll. VII, p. 282, IX, p. 351.

1. **Entomophthora Aphrophoræ** E. Rostr. Botan. Tidskr. XX, 1896, p. 128 c. fig. — Hyphis et conidiis hyalinis v. dilute fuscidulis; hyphis 8-10 μ. crassis, guttulatis; rhizoidibus ambitu longe exstantibus, ramosis; hyphis conidiophoris sursum incrassatis; conidiis fusoideo-oblongis, 16-18 × 7-8, 1-guttulatis; sporis perdurantibus ignotis. 1646

   Hab. in Aphrophora spumaria in Dania.

Fam. 3. **Chytridiaceæ** De By et Wor.

MASSARTIA De Wild. Ann. Soc. belg. Micr. 1897, p. 25 (extr.) (Etym. ab J. Massart, qui hoc genus in Java detexit). — Mycelium in mucum Algarum transcurrens, ubique sæpe dichotome ramosum, hinc inde gerens glomerulos filamentorum, in quibus zygosporæ gignuntur; zygosporæ leves, sæpe in cumulum aggregatæ, membrana crassa præditæ.

1. **Massartia javanica** De Wild. Ann. Soc. belg. Micr. 1897, p. 25, tab. II, fig. 6-14. — Characteribus generis; zygosporis globosis, 35–42 μ. diam. 1647

   Hab. in muco Algarum terrestrium nec non ad cortices arborum viventium, Java (Massart).

ASTEROCYSTIS De Wild. Mem. belg. Micr. 1893, p. 21 (Etym. *aster* et *cystis* vesica ob cellulas stellatas) nec *Astrocystis* B. et Br. — Cellulæ stellatæ, linea circumscriptæ, centro nucleatæ, globosæ v. ellipticæ, in cellula matricis solitariæ vel plures consociatæ, sporangiis perdurantibus generis *Olpidii* proxime affines.

1. **Asterocystis radicis** De Wild. l. c. tab. III, fig. 1-6, 19. — Cellulis stellatis, membrana asperata præditis, linea continua circumscriptis, centro nucleo globoso v. ellipsoideo granuloso magnam cellulæ partem occupante farctis, in cellula matricis solitariis vel pluribus (ad 10) aggregatis et magnitudine et forma valde variis, plerumque globosis, sed etiam ellipsoideis interdumque 4-ter vel 5-ies longioribus quam latioribus, 18–35 μ. 1648

Hab. in radicibus Brassicæ oleraceæ, B. Napi, Capsellæ Bursæ-pastoris, Thlaspeos arvensis, Plantaginis Psyllii, Veronicæ longifoliæ, Limosellæ aquaticæ et Graminum plurium in Belgio uno loco frequenter observata.

OLPIDIUM A. Braun — Syll. VII, p 310, IX, p. 361, XI, p. 246.

1. **Olpidium radicicolum** De Wild. Cens. Chytrid. p. 16; *Olpidium Borzii* De Wild. Mém. belg. Micr. 1893, p. 19, tab. III, fig. 7-18. — Zoosporangiis et forma et magnitudine valde variantibus, plerumque plus minusve elongato-ellipsoideis, 32-112 × 16; zoosporis plerumque per collum unum (interdum per duo v. tria) breve vel sublongum exeuntibus, numerosissimis, ellipticis, centro nucleo præditis, antice uno cilio ornatis; sporis perdurantibus non visis. 1649

   Hab. in radicibus Brassicæ oleraceæ et Capsellæ Bursæ pastoris in Belgio.

2. **Olpidium Œdogoniorum** (Sorok.) De Wild. Ann. Soc. belg. Micr. 1894, p. 154, tab. VI, fig. 9-10; *Olpidiopsis fusiformis* Cornu var. *Œdogoniorum* Sorok. — Zoosporangiis elongatis, collo uno, rarius collis duobus membranam cellullæ matricis perforantibus, elongatis, minutis; zoosporis non visis. 1650

   Hab. in cellulis Œdogoniorum in Asia centr. et Gallia.

3. **Olpidium rostratum** De Wild. Notarisia 1895, p. 35. — Zoosporangiis ellipticis, elongatis, interdum in cellula matricis compluribus associatis, 28-40 × 6, collo brevi parum prominulo donatis, membrana levi hyalina inclusis, uno alterove apice rostro supra recurvato, aculeis 4-5 μ. longis tecto, ornatis; zoosporis sporisque perdurantibus ignotis. 1651

   Hab. in cellulis Closterii in Norvegia.

4. **Olpidium Gillii** De Wild. Journ. micr. soc. 1893, tab. 1, fig. 1-8; Ann. Soc. belg. Micr. 1896, p. 41. — Zoosporangiis ellipticis, solitariis v. 2-3 in cellula matricis consociatis, magnitudine valde variantibus, membrana levi inclusis, collo semper solitario extra cellulam matricis valde prominente; zoosporis numerosis; sporis perdurantibus nondum visis. 1652

   Hab. in cellulis Pleurosigmatis attenuati, Coccconematis lanceolati et Nitzschiæ spec. pr. London Britanniæ (H. Gill).

5. **Olpidium ? Mesocarpi** De Wild. Ann. Soc. belg. Micr. 1896, p. 43, tab. 1, fig. 13-16. — Zoosporangiis levibus ellipticis, plus minusve elongatis 20-28 × 10, solitariis v. interdum in cellula matricis com- 1653

pluribus aggregatis ac filamenti latitudinem omnino occupantibus, collo nullo, zoosporas per papillam, membranam cellulæ matricis perforantem, sed extra non prominulam emittentibus; zoosporis et sporis perdurantibus ignotis.

Hab. in cellulis Mesocarpi in Belgio.

6. **Olpidium Euglenæ** Dang. Le Botan. 1896, p, 247, c. fig. — Zoo- 1654
sporangiis sphæricis, intra cellulam hypertrophicam matricis inclusis, dein erumpendo partim emergentibus et vesicam sphæricam etiam extra matricem formantibus; zoosporis globulosis, longe 1-ciliatis, guttulam flavo-aurantiam includentibus.

Hab. in Euglena, Poitiers Galliæ.

OLPIDIOPSIS Cornu. — Syll. VII, p. 299, IX, p. 362, XI, p. 247.

1. **Olpidiopsis appendiculata** De Wild. Notarisia 1895, p. 34. — Zoo- 1655
sporangiis globosis v. ellipticis; zoosporis ignotis; sporis perdurantibus globosis 9-15 μ. circiter diam. (sine aculeis), membrana crassa tectis, aculeis paucis longiusculis ornatis, cellula adhærente elongata, vermiformi, apice clavato-incrassata, 20 μ. circiter longa.

Hab. in cellulis Mesocarpi, ubi inflationes efficit, in Gallia.

2. **Olpidiopsis fibrillosa** De Wild. Notarisia 1895, p. 34. — Zoospo- 1656
rangiis ellipticis majusculis; zoosporis ignotis; sporis perdurantibus globosis v. ellipticis, 20-25 μ. circiter diam., fibris tenuibus radiantibus ubique ornatis, membrana crassa tectis, cellulis adhærentibus globosis v. subpiriformibus, interdum catenatis, circiter 12 μ. diam.

Hab. in cellulis Spirogyræ in Gallia.

3. **Olpidiopsis Zopfii** De Wild. Notarisia 1895, p. 34. — Zoosporan- 1657
giis globosis v. ovoideis; zoosporis ignotis; sporis perdurantibus globosis, aculeis basi dilatatis, apice acutissimis ubique ornatis, 16-22 μ. diam. (sine aculeis), membrana crassa tectis, cellulis adhærentibus levibus, 12 μ. circiter diam.

Hab. in cellulis Spirogyræ in Gallia.

4. **Olpidiopsis major** Maurizio, Jahresber. d. Naturf. Gesellsch. Grau- 1658.
bünd. 1895, p. 15, fig. 4–9. — Sporangiis levibus, globosis ovalibus, $23\,^1/_2$-80 μ. diam. vel 70-124 × 22-62, hyalinis, membrana tenui; zoosporis biciliatis, globosis v. ovalibus; sporangiis perdurantibus plerumque globosis, raro ovalibus, guttulis oleosis multis repletis, membrana crassa, lutea, undulata cinctis, 30-40 μ. diam. vel $74\,^1/_2$-105 × $43\,^1/_2$-50; cellulis adjacentibus hyalinis, membrana tenuissima, 28-31 × $15\,^1/_2$-$21\,^1/_2$.

Hab. in Saprolegnia, Val Campo Helvetiæ.

PLASMOPHAGUS De Wild. Ann. Soc. belg. Micr. 1895, p. 219 (Etym. a *plasma* et *phago* edo). — Plasmodium cellulam matricis plerumque omnino implens, forma varium, irregulare, in juventute a protoplasmate cellulæ matricis difficile distinguendum, transverse indistincte divisum, elongationem cellularum efficiens, primitus nudum, in maturitate membrana tenui inclusum, demum in zoosporangium se mutans; zoosporangium latitudine cellularum, dein in zoosporas per papillam brevisimam non prominulam exeuntes divisum; zoosporæ ovales, piriformes v. reniformes, cilio unico ornatæ.

1. **Plasmophagus Œdogoniorum** De Wild. l. c. tab. VIII-IX. — Characteribus generis; zoosporangiis vulgo solitariis, rarius in eadem cellula compluribus aggregatis; zoosporis antice uniciliatis. 1659

Hab. in filamentis Œdogoniorum, Nancy Galliæ.

PLEOTRACHELUS Zopf. — Syll. VII, p. 315.

1. **Pleotrachelus radicis** De Wild. Ann. Soc. belg. Micr. 1893, p. 23, tab. III, fig. 20-25, 1895, p. 67-71 tab. II, fig. 23-35. — Zoosporangiis globosis v. ovoideis, in contextu celluloso plantarum aquaticarum v. terrestrium ortis, intus granulis radiatim dispositis v. interdum nucleo rotundato centrali radiato ornatis, membrana hyalina v. pallide luteo-tincta, collis numerosis conicis v. tubulosis interdum irregularibus prædita; zoosporis ac sporis perdurantibus nondum visis. 1660

Hab. in radicibus Thlaspeos arvensis, in plantis aquaticis ac terrestribus in Belgio, Helvetia. — Tres formæ observatæ sunt: forma *major*: zoosporangiis 65-85 μ. diam., membrana colorata, collis numerosis prædita; forma *intermedia*: zoosporangiis 33-52 μ. diam., membrana subhyalina, collis subnumerosis prædita; forma *minor*: zoosporangiis 17-26 μ. diam., membrana subhyalina, collis paucis gracilibus prædita.

ENDOLPIDIUM De Wild. Ann. Soc. belg. Micr. 1894, p. 151 (Etym. *endon* intus et *Olpidium*) — Plasmodia intra cellulas algarum viventia, membrana inclusa, dein in zoosporangia se mutantia; zoosporangia collo brevi intra cavitatem cellulæ aperto nunquam membranam cellulosam perforante munita, per collum zoosporas emittentia; sporæ perdurantes ac zoosporarum germinatio adhuc ignotæ.

1. **Endolpidium Hormisciæ** De Wild. l. c. tab. VI, fig. 1-8,11. — Plas- 1661

modiis hyalinis, membrana inclusis, plerumque in cellula matricis valde deformata, inflata ac elongata solitariis, rarius binis associatis; zoosporangiis collo brevi munitis.

Hab. in cellulis Hormisciæ zonatæ, Nancy Galliæ.

NUCLEOPHAGA Dang. Le Botaniste 1896, p. 201. (Etym. *nucleus* et *phago* edo). — Zoosporangia globosa intra nucleos Amœbarum parasitice nascentia. Zoosporæ sphæricæ, muticæ, nucleolatæ.

1. **Nucleophaga Amœbæ** Dang. l. c. fig. 1-5. 1662

Hav. in nucleo Amœbæ verrucosæ v. affinis in Gallia. — Sporangia simplicia v. coalescendo multipla.

SYNCHYTRIUM De Bary. — Syll. VII, p. 288, IX, p. 357, XI, p. 247.

1. **Synchytrium andinum** Lagh. Bull. Boiss. 1895, p. 61. — Verrucis multicellularibus, rubro-brunneis, sæpe confluentibus; soris globosis vel ellipsoideis, 60-110 μ. diam.; sporangiis numerosis, irregularibus, e mutua pressione angulatis, 40-60 μ. diam., contentu aurantiaco; sporangiis perdurantibus solitariis, globosis, 80-120 μ. diam., membrana crassa, fusco-brunnea, levi cinctis. 1663

Hab. in foliis vivis Ranunculi pr. Quito in Æquatoria.

2. **Synchytrium Anemones** (D. C.) Wor.-Sacc. Syll. VII, p. 288. — Var. **Ranunculi** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 88. — Tuberculis unicellularibus, brunneis v. violaceis, quam typi, minoribus, hypophyllis, sparsis v. gregariis in maculis pallidissime violaceis; sporangiis perdurantibus rotundis v. ovoideis, variæ dimensionis, 50-200 μ. diam., episporio brunneo, crasso, levi, protoplasmate hyalino. 1664

Hab. in foliis vivis Ranunculi chærophylli var. flabellati in Tunisia.

3. **Synchytrium rugulosum** Diet. Hedw. 1895, p. 292. — Sporangiis perdurantibus ellipticis, in cellula matricis solitariis, 170-190 μ. latis; episporio castaneo, subtiliter crispato v. rugoso, intus hyalino; gallis subrotundis, solitariis v. aggregatis, sessilibus; protoplasmate coccineo. 1665

Hab. in foliis caulibusque Onagraceæ cujusdam in California.

4. **? Synchytrium groenlandicum** Allesch. in Allescher et P. Hennings, Pilze aus dem Umanakdistrikt. 1897, p. 1. — Tuberculis in statu immaturo flavo-virentibus, hemisphæricis vertice leniter depressis, sæpe concavis, ca. 0,2-0,5 mm. diam.; sporis perdurantibus non visis. 1666

Hab. in foliis vivis Saxifragæ cernuæ forma ramosæ, Karajak-Nunatak Groenlandiæ (Vanhöffen).

5. **Synchytrium Shuteriæ** P. Henn. Pilz. Ostafr. p. 30. — Maculis 1667
pallidis, rotundatis; tuberculis amphigenis, sparsis v. confluentibus, subhemisphæricis, applanatis, dein irregulariter rugosis, flavescenti-viridulis, dein subfuscescentibus, 0,3-1 mm. diam., plerumque e pluribus cellulis perdurantibus formatis; sporis globosis v. subellipsoideis, sæpe acutangulis, flavo-fuscescentibus, 10-15 × 9-13; episporio levi, 1-1 $^1/_2$ μ. crasso, subhyalino.

Hab. in foliis vivis Shuteriæ africanæ in Africa trop. (Volkens).

6. **Synchytrium decipiens** Farl.-Sacc. Syll. VII, p. 292. — Var. **citri-** 1668
num Lagh. Bull. Boiss. 1895, p. 61 (sub nom. *S. œcidioides*). — Sporangiis contentu citrino nec aurantiaco.

Hab. in foliis vivis Desmodii in Æquatoria.

7. **Synchytrium Johansonii** Juel, Bidrag Skand. Synch. in Bot. Notiz. 1669
1893, p. 246. — Gallulis minutis unicellularibus, interdum cellulis adjacentibus etiam affectis tuberculum parum elevatum formantibus; póris quiescentibus globosis, 48-55 μ. diam., episporio fusco et massa irregulari cellulam matricalem explente tectis, protoplasmate (ut videtur) albo completis.

Hab. in foliis Veronicæ scutellatæ in Jemtlandia et Smolandia.

8. **Synchytrium Niesslii** Bubák, Oesterr. Bot. Zeitschr. 1898, n. 7, 1670
p. 242. — Tuberculis oculo nudo conspicuis, simplicibus, subglobosis, sordide albidis, sed intense brunneo-limitatis, solitariis v. aggregatis ac tum folium plerumque curvantibus; cellulis epidermicis ventricoso- vel fusiformi-turgidis; sporangiis perdurantibus semper perfecte globosis, solitariis vel 2-10 in cellula matricis nidulantibus, sed etiam 10-20 in quaque cellula aggregatis et tum in series duas dispositis, numquam mutua pressione applanatis, 50-60 μ. diam.; episporio brunneo, verrucis striiformibus parallelis præditis; protoplasmate hyalino.

Hab. in foliis Ornithogali umbellati pr. Hohenstadt Moraviæ (Bubák). — *S. punctato* Schroet. affine, a quo colore tuberculorum et forma sporangiorum perdurantium satis diversum.

9. **Synchytrium Caricis** Tracy et Earle, Proc. Californ. Acad. V, 1671
1895, p. 731. — Soris amphigenis, ellipticis v. oblongis; maculis rubro-brunneis, distinctis, sparsis; sporangiis numerosis, globosis v. ovalibus, sæpe angularibus, dilute luteis, 20-25 × 12-15.

Hab. in foliis Caricis pyrenaicæ, Utah, Amer. bor.

10. **Synchytrium Phegopteridis** Juel, Bidrag Skand. Synch. in Bot. Notiz. 1893, p. 246. — Gallulis prominentibus plerumque pluricellularibus, sæpius confluentibus, cellula matricali centrali globosa, 150–200 μ. diam.; sporis in cellulis matricalibus, singulis v. interdum binis, ellipsoideis, 130-150 × 90, episporio tenui vix fuscescenti et materia alba haud crassa tectis, protoplasmate albo completis. 1672

Hab in foliis, præcipue in rhachide Phegopteridis polypodioidis in Jemtlandia et Dalecarlia.

ENTOPHLYCTIS Fischer Phycom. Deutschl. 1892, p. 114 (Etym. *entos* intus et *phlyctis* bulla). — Sporangia et sporæ perdurantes intramatricalia, filis mycelicis uno v. pluribus, intramatricalibus ramosisque prædita; vesica subsporangialis sæpius adest.

1. **Entophlyctis heliomorpha** (Dang.) Fisch. Phycom. p. 118; *Chytridium heliomorphum* Dang. Journ. de Bot. 1888, p. 143, tab. V, fig. 19-23. — Zoosporangiis globosis, basi filamentis mycelicis simplicibus v. ramosis cinctis, 10-12 μ. diam , interdum 20 μ. diam., membrana hyalina levi præditis; zoosporis per collum breve papilliforme prominulum emissis, globosis, 3 μ. diam., cilio longissimo ornatis, nucleis nitentibus farctis; sporis perdurantibus basi filamentis radiciformibus præditis, membrana crassa, duplici, levi tectis. 1673

Hab. in cellulis Nitellæ, Charæ et Vaucheriæ in Gallia.

RHIZOPHIDIUM Schenk — Syll. VII. p. 298, IX, p. 362, XI, p. 248.

1. **Rhizophidium messanense** Morini, Malpighia 1896, p. 79, tab. III, f. 1–4. — Hyphis mycelialibus exilissimis in cellula nutritia expansis; zoosporangiis cylindroideis, inferne in brevissimum pedunculum attenuatis, in minutissimam vesiculam plerumque inflato, 48-54 × 17-22, laceratione papillæ apicalis dehiscentibus; zoosporis globulosis, roseo-pallidis, $3^1/_2$-4 μ. diam.; sporis quiescentibus, brunneo-rubescentibus, episporio glabro, 26-31 μ. diam., ut zoosporangia, germinantibus. 1674

Hab. in filamentis cujusdam Cladophoræ, Messina Siciliæ.

2. **Rhizophidium marinum** De Wild. Mém. soc. belg. Microsc. t. XVII, 1893, p. 11. — Zoosporangiis rotundatis, intus granulosis, magnitudine valde variantibus, 7–15 μ. diam., basi filamentis mycelicis paucis, sæpe imperspicuis cinctis. 1675

Hab. in Melosira quadam in aquario horti botan. Bruxellensis in Belgio.

3. **Rhizophidium dubium** De Wild. Ann. Soc. belg. Micr. 1895, p. 112, tab. III, fig. 26-28. — Zoosporangiis globosis, basi filamentis mycelicis dichotome ramosis, membranam cellulæ matricis perforantibus præditis, demum apice apertis; zoosporis sporisque perdurantibus ignotis. 1676

Hab. in filamentis Spirogyræ, Nancy Galliæ. — A *Rhizophidio carpophilo* vix nisi matrice distinctum.

4. **Rhizophidium Pythii** De Wild. Ann. Soc. belg. Micr. 1897, p. 11 (extr.) tab. 1, fig. 10-17. — Zoosporangiis globosis, basi filamentis mycelicis ramosis præditis, in cellula matricis solitariis vel 2–4 consociatis, papillis 1-2 brevibus munitis, magnitudine valde variantibus; zoosporis globosis, cilio simplici longissimo ornatis, nucleo præditis. 1677

Hab. parasiticum in zoosporangiis Pythii complentis, Nancy Galliæ.

5. **Rhizophidium asymmetricum** (Dang.) De Wild. Cens. Chytrid. p. 38; *Chytridium asymmetricum* Dang. Le Bot. II, p. 243, tab. XVII, fig. 1 (1891). — Sporangiis junioribus sphæricis, denique apice papillatis et asymmetricis, basi rhizoidibus perexiguis instructis; zoosporis sphæricis 1-ciliatis. 1678

Hab. in Confervis in fl. Sarthe Galliæ.

6. **Rhizophidium Œdogonii** P. Richt. Bibl. Bot. Hf. 42, 1897, p. 12, cum fig. — Sporangiis asymmetricis, ellipticis, uno latere depressis, altero convexis ideoque obtuse 3-angularibus v. globoso-tetrahedricis, quaque parte in apiculum productis, 28 μ. longis (cum apiculis 32 μ.), 14-17 μ. latis. 1679

Hab. in Œdogonio in Groenlandia

7. **Rhizophidium subangulosum** (Al. Br.) Rabh. Fl. Eur. Alg. III, p. 201; *Chytridium subangulosum* Al. Br. Abhandl. Berl. Acad. 1855, p. 44, tab. IV, fig. 27-31. — Zoosporangiis globosis, solitariis v. aggregatis, 2-3 papillis brevibus præditis ideoque subangulosis, 20-25 μ. diam.; zoosporis globosis, $2^1/_2$ μ. diam., cilio perlongo ornatis. 1680

Hab. in cellulis Oscillariæ tenuis in Germania.

8. **Rhizophidium zoophthorum** (Dang.) Fisch. Phycom. p. 94; *Chytridium zoophthorum* Dang. Le Bot. 1889, p. 58, t. III, f. 10, 21. — Mycelio copiose ramoso; zoosporangiis sessilibus, aggregatis, limoniformibus, apice papilla obliqua oblonga præditis, membrana hyalina, levi inclusis, 20-25 × 15-17; zoosporis globosis v. ovoideis 1681

3 μ. diam., cilio longissimo donatis, nucleo oleoso farctis; sporis perdurantibus ignotis.

Hab. saprophytica in Rotiferis emortuis in Gallia.

RHIZOPHLYCTIS Fischer, Phycom. 1892, p. 119, Syll. XI, p. 249. (Etym. *rhiza* radix et *phlyctis* bulla, pustula). — Sporangia et sporæ perdurantes libera; sporangia globosa v. ellipsoidea, inermia, indivisa, filis mycelicis pluribus instructa.

1. **Rhizophlyctis operculata** De Wild. Ann. Soc. belg. Micr. 1895, p. 105, t. IV, f. 1-9. — Zoosporangiis plus minusve regulariter ovoideis, basi in filamenta radiciformia copiose ramosa productis, 50-174 × 33-100, collo longitudine variabili, interdum longissimo; zoosporis numerosis, centro nucleo oleoso farctis, massam compactam mucilaginosam formantibus, post exitum e zoosporangiis quiescentibus; sporis perdurantibus non visis. 1682

Hab. in contextu plantarum submersarum, Nancy Galliæ.

LATROSTIUM Zopf, Beitr. Phys. u. Morph. nied. Organ. IV, p. 43-68 (Etym. *latus* et *ostium*). — Mycelium intramatricale, copiose ramosum; sporangia extramatricalia, vertice compressa ideoque latiora quam longa, ostiolo laterali prædita; zoosporæ antice cilio unico ornatæ; sporæ perdurantes extramatricales, vertice compressæ, ut sporangia latiores quam longæ, membrana crassa duplici inclusæ. *Rhizophidio* affine.

1. **Latrostium comprimens** Zopf, l. c. t. III, fig. 15-19. — Mycelio intra cellulas algarum vivente, copiose ac tenuiter ramoso; sporangiis tenue tunicatis, ellipsoideis v. ovoideis, 25-60 μ. diam. longiore; zoosporis minutissimis globosis, $2^1/_2$-3 μ. diam., nucleis magnis farctis, 50-200 in quoque sporangio; sporis perdurantibus sublenticularibus, 25-50 μ. diam. longiore, membrana hyalina jodi ope cœrulescente duplici tectis, exosporio crasso radiato, endosporio tenui, intus nucleis permagnis hyalinis præditis. 1683

Hab. in oosporis, quas comprimit, Vaucheriæ in Germania, Belgio, Helvetia.

RHIZIDIOMYCES Zopf — Syll. VII, p. 316.

1. **Rhizidiomyces Spirogyræ** De Wild. Ann. Soc. belg. Micr. 1895, p. 111, t. IV, f. 14-22. — Mycelio intra cellulas algarum evoluto; zoosporangiis extra cellulas viventibus, globosis v. subovoideis, basi vesicula matricem penetrante, filamenta mycelica ramosa gerente 1684

ornatis, apice nunquam in collum longum attenuatis, levibus, sine operculo apertis; zoosporis ignotis; vesicula globosa, subsporangiali; sporis? pĕrdurantibus globosis v. ovoideis, membrana crassa granulosa inclusis, in zygosporis algarum evolutis.

Hab. in cellulis Spirogyræ, Nancy Galliæ.

RHIZIDIUM A. Braun — Syll. VII, p. 296, IX. p. 358, XI, p. 248.

1. **Rhizidium Chætophoræ** De Wild. Ann. Soc. belg. Micr. 1895, p. 216, t. VII, fig. 15-21. — Zoosporangiis piriformibus, raro ellipticis, basi vesiculam filamentis mycelicis paucis ramosis suffultam gerentibus, membrana levi, demum apice apertis ibique irregulariter laceratis, magnitudine valde variantibus, 20-38 × 15-20; zoosporis 3 μ. circiter diam.; sporis perdurantibus ignotis. 1635

Hab. in filamentis Chætophoræ elegantis in Gallia.

2. **Rhizidium? Autrani** De Wild. Ann. Soc. belg. Micr. 1895, p. 72, t. II, f. 17-21. — Sporangiis e cellulis duabus constitutis; cellula inferiori elongato-ovoidea, vulgo sursum inflata, basi in filamenta radiciformia non producta; cellula superiori globosa, interdum subelongata, apice dein apertis. 1636

Hab. in Cosmariis in Helvetia.

CHYTRIDIUM A. Braun. — Syll. VII, p. 304, IX, p. 358, XI, p. 250.

1. **Chytridium minus** Lacost. et Suring. in Rabenh. Fl. Eur. Alg. III, p. 277. — Cellula subglobosa v. breviter oblonga, pallide flava, processu papilliformi mediocri demum aperte coronata, caudicula solida, e basi lata breviter aucta, demum sæpius in filamentum tenuissimum desinente. 1687

Hab. in Ulothricis filis, Conferva rhypophila, Œdogonio, Bulbochæte setigera et in Gomphonematis stipitibus in Hollandia. — Diam. cellulæ altitudini æqualis v. paulo minor, $10^1/_2$-14 μ. (exceptis papilla et radicella); specimina minima 5 μ., processus $1^1/_3$-$2^1/_2$ μ. altus, $2^1/_2$-4 μ. latus.

2. **Chytridium simulans** Dang. Le Botaniste, 5 ser. Fasc. I, 1896, p. 21, c. fig. — Filamentis mycelicis cylindricis rectis, simplicibus; sporangiis sphæricis apicalibus v. intercalaribus, per papillam varie sitam dehiscentibus; zoosporis ellipsoideis 1-ciliatis, 1688

Hab. in Pythio quodam parasitans, Poitiers Galliæ.

ASTREPTONEMA Hauptfleisch, Ber. Deutsch. Bot. Ges. 1895, p. 83, t. VIII, fig. 1-10. (Etym. *a* priv., *streptos* tortus et *nema* filum).

— Thallus non racemosus. Oosporæ in quoque oogonio singulæ plurinucleatæ, oblongæ. Oogonia terminalia, superimposita seu catenulata.

1. **Astreptonema longisporum** Hauptfl. l. c. — Una tantummodo oospora in oogonio nata, quasi explente oogonium, oosporis plurinucleatis, oblongis, 2-2,6 ≈ 7-10; oogoniis terminalibus, semper simplici serie invicem adnexis non transfusis; sporangiis incognitis; antheridia desunt. 1689

Hab. in tegumento Gammari Locustæ in Germania.

CHRYSOPHLYCTIS Schilberszky, Ber. d. Deutsch. Bot. Ges. 1896, p. 36 (Etym. *chrysos,* aureus et *phlyctis,* bulla). — Sporangia amycelica, endobiotica, sphærica (aureo-brunnea), in quaque cellulâ matricis singula v. pauca, zoosporis referta. Sporæ perdurantes quoque adsunt leves, crassiuscule tunicatæ.

1. **Chrysophlyctis endobiotica** Schilb. l. c. 1690

Hab. in tuberibus Solani tuberosi putridis in Hungaria super.

PHYSODERMA Wallr. — Syll. VII, p. 317, IX, p. 363, XI, p. 250.

1. **Physoderma Magnusianum** Krieger, Hedw. 1896, p. (144). — Maculis $^1/_3$-1 $^1/_2$ mm. diam., in petiolis oblongis, in foliis plerumque globosis, brunneis, callosis; sporangiis perdurantibus brunneis, globosis v. oblongo-globosis, 30-34 μ. diam. 1691

Hab. in foliis petiolisque Nasturtii amphibii pr. Königstein Saxoniæ.

2. **Physoderma Acetosellæ** E. Rostr. Bot. Tidsskr. 1897, p. 38. — Sporis perdurantibus sive globosis, 15-25 μ. diam., sive ellipsoideis, 30-35 ≈ 23-26, membrana hyalina protoplasmate brunneo farctis, intercellularibus, in eadem cellula 1-3, sporis majoribus subinde 1-2 appendiculis ovatis instructis. 1692

Hab. in ovariis Rumicis Acetosellæ in Dania.

3. **Physoderma Calami** Krieger, Hedw. 1896, p. (144). — Maculis brunneis, subrotundis v. oblongis, $^1/_2$-1 $^1/_2$ mm. diam., in foliis vivis non callosis, in foliis siccatis parum callosis; sporangiis perdurantibus in cellulis compluribus consociatis, brunneolis, globosis v. subglobosis, 15-22 μ. diam. 1693

Hab. in foliis Acori Calami pr. Königstein Saxoniæ.

4. **Physoderma Schrœteri** Krieger, Hedw. 1896, p. (144). — Foliicolum aut maculas subrotundas atras $^1/_3$-1 mm. diam. efficiens aut in series 1694

atras, usque ad 2 mm. longas, dispositum; sporangiis perdurantibus globosis v. oblongo-globosis, in cellulis parenchymaticis solitariis vel 2-4 associatis, flavescentibus v. brunneolis, 23-36 μ. diam., membrana crassa cinctis.

Hab. in foliis et vaginis Scirpi maritimi pr. Königstein Saxoniæ.

5. **Physoderma leproides** (Trab. et Sacc.) Lagerh. Myk. Stud. 1898, p. 10, tab. I et II. Ita dicendus est *Œdomyces leproides* Trab. et Sacc., Syll. XI, p. 234, *Urophlyctis leproides* (T. et S.) Magn. in Ann. of Bot. 1897, p. 92, t. VIII, f. 17-31, *Cladochytrium Alfalfæ* Lagerh. in Bull. herb. Boiss. 1895, p. 62 (nomen). 1695

Hab. præter Betam etiam in radicibus Medicaginis sativæ in Æquatoria.

CLADOCHYTRIUM Now. — Syll. VII, p. 295, XI, p. 250.

1. **Cladochytrium Hippuridis** De Wild. Ann. Soc. belg. Micr. 1893, p. 46, t. VII, fig. 1-3. — Mycelio in matrice late effuso, copiose ramoso, hinc inde inflato; sporis perdurantibus in quaque cellula plus minusve numerosis, plerumque 2-6 consociatis, ovoideis v. ellipsoideis, 33 × 25, centro hyalinis, membrana levi, brunneo-colorata inclusis. 1696

Hab. in cellulis Hippuridis vulgaris in Gallia.

2. **Cladochytrium irregulare** De Wild. Ann. Soc. belg. Micr. 1895, p. 88, t. III, f. 1-13. — Filamentis mycelicis angustissimis, ramosis, in contextu plantarum aquatilium evolutis ac in cellulis penetrantibus; vesiculis forma valde variantibus, regularibus v. irregularibus, ovoideis, ellipticis vel irregulariter sinuosis, 35 × 15-40, in cellula matricis solitariis vel 2-6 consociatis, septo a mycelio divisis. 1697

Hab. in contextu plantarum aquatilium, Nancy Galliæ.

3. **Cladochytrium cornutum** De Wild. Ann. Soc. belg. Micr. 1896, p. 56, t. III, f. 1-22. — Mycelio in matrice late effuso, ramoso, protoplasmatico, hinc inde fusiformiter inflato; zoosporangiis mycelii filamento erecto dein apice irregulariter inflato insidentibus, globosis v. reniformibus, parte superiore 3-7 dentibus coroniformiter dispositis ornatis, apice apertis; zoosporis globosis, cilio simplici ornatis, nucleo excentrico donatis; sporis perdurantibus ignotis. 1698

Hab. in contextu plantarum in aqua submersarum, Nancy Galliæ.

4. **Cladochytrium Asphodeli** Debray Bull. Soc. Mycol. de France 1897, 1699

pag. 209. — Maculis nigris v. brunneis, irregularibus, sparsis v. confluentibus, amphigenis, minutissimis, sed etiam usque ad 8-15 cm. longis; sporis hemisphæricis, planis v. concavis, episporio crasso, levi, brunneo, 18-20 × 10-12.

Hab. in foliis vivis Asphodelorum in Tunisia et Algeria.

5. **Cladochytrium Urgineæ** Pat. et Trab. Bull. Soc. Mycol. de France, 1897, p. 210. — Maculis ovalibus v. subrotundis, 1-2 cm. longis, 1700
8-15 mm. latis, rubescentibus v. brunneis, opacis; sporis 2-3 v. pluribus, primo hyalinis, dein brunneis, hemisphæricis, 22-27 × 12-14.

Hab. in foliis Urgineæ maritimæ in Algeria (Trabut).

6. **Cladochytrium Tmesipteridis** Dang. Le Botan. 1891, p. 223, t. X, 1701
fig. 1-2, t. XV, f. 15. — Mycelio toruloideo, effuso, brunneo, filamentis laxe intricatis; sporangiis sphæricis apicalibus v. intercalaribus, brunneis, sæpe grosse 1-guttulatis; oosporis globosis, bitunicatis, coloratis.

Hab. in rhizomate Tmesipteridis in Nova Caledonia.

7. **Cladochytrium viticolum** Prunet, Compt. rend. Ac. Sc. 1894, pp. 1702
108, 808, 1233, Zeitsch. Pfl. Krank. 1895, p. 181. — Maculas brunneas punctiformes sistens; sporangiis perdurantibus primo vere zoosporiparis, zoosporis cito germinantibus, mycelio tenuissimo e zoosporis oriente et in matricis plures partes penetrante, dein zoosporangia unicellularia gignente; sporangiis hiemali tempore iterum efformatis.

Hab. in contextu ligneo Vitis viniferæ in Gallia, Algeria, Tunisia, Amer. bor. — Generat morbum, qui audit *Gommose bacillaire, brunissure, mal nero* etc.

8. **Cladochytrium Mori** Prunet, Compt. rend. Ac. Sc. 1895, p. 222, 1703
Zeitsch. Pfl. Krank. 1896, p. 22. — Vix differt a *Cladochytrio viticolo* magnitudine sporangiorum et zoosporarum.

Hab. in contextu ligneo Mori in Gallia merid.

9. **Cladochytrium tuberculorum** Vuill. Ann. Sc. Agron. I, 1888, 1704
p. 75-77. — Filamentis mucilagineis hinc inde in zoosporangia hieme maturescentia intumescentibus; zoosporis uniciliatis.

Hab. in tuberculis radicalibus Leguminosarum in horto bot. Nancy Galliæ.

PYROCTONUM Prunet, Rev. Mycol. 1897, p. 91 (Etym. *pyros* triticum cereale et *ctonos* occisio). — Mycelium in matrice late effusum, e filamentis tenuissimis compositum. Zoosporangia ex vesiculis filamen-

torum formata, primo nuda, dein membrana tenui tecta; zoosporæ primo angulosæ, dein sphæricæ, cilio simplici ornatæ, sed denique membrana tectæ.

1. **Pyroctonum sphæricum** Prunet l. c. — Mycelium ramosum, intra- 1705
cellulare, late effusum, ex hyphis gracilibus tenuissimis compositum; zoosporangiis uniguttulatis, ovoideis v. piriformibus, 15-50 μ. diam., terminalibus v. intercalaribus; zoosporis primo angulosis, dein sphæricis, uniguttulatis, uniciliatis, denique membrana tectis, circiter 3 μ. diam.

Hab. in foliis culmisque Secalis Cerealis in Gallia.

Fam. 4. Saprolegniaceæ.

MYZOCYTIUM Schenk — Syll. VII, p. 279.

1. **Myzocytium megastomum** De Wild. Ann. Soc. belg. Micr. 1893, 1706
p. 53, tab. VI, fig. 6-10, tab. VII, fig. 19-20, 1895, p. 77. — Zoosporangiis moniliformibus, globosis v. lageniformibus, collo intra cellulam interdum longissimo, usque ad 150 μ. munitis; antheridiis et oogoniis zoosporangiis immixtis; oosporis membrana crassa, duplici, levi inclusis.

Hab. in cellulis Spirotæniæ, Closterii etc. in Gallia pluribus locis observatum.

LAGENIDIUM Schenk — Syll. VII, p. 278, IX, p. 348, XI, p. 248

1. **Lagenidium intermedium** De Wild. Ann. Soc. belg. Micr. 1895, 1707
p. 96, tab. IV, fig. 10-13. — Mycelio ramoso, crassiusculo, ramis plus minusve elongato-cylindricis, rarius torulosis; zoosporangiis paucis in quaque cellula, collo sæpe elongato interdum ante exitum e cellula matricis inflato ac paulo post constricto præditis; zoosporis ignotis; oogoniis intercalaribus; oosporis globosis, membrana crassa, levi tectis.

Hab. in Closteriis pr. Nancy Galliæ.

2. **Lagenidium Closterii** De Wild. Ann. Soc. belg. Micr. 1893, p. 42, 1708
t. VI, fig. 1-5. — Mycelio ramoso, e cellulis mox cylindricis mox plus minusve inflatis irregulariter composito; zoosporangiis e cellulis inflatis oriundis, collo angusto extra cellulam valde elongato munitis; oogoniis ventricosis, plerumque e cellulis cylindricis oriundis; antheridiis ramulo laterali oogonium amplectentibus; oosporis 12. circiter diam., membrana duplici inclusis, verrucis irregularibus tectis, nucleo centrali præditis.

Hab. in cellulis Closterii striolati in Gallia.

3. **Lagenidium Marchalianum** De Wild. Ann. Soc. belg. Micr. 1897, p. 8 (extr.) tab. I, fig. 1-9. — Mycelio ramoso, 4-5 μ. diam. e cellulis plus minusve regulariter cylindricis, interdum irregulariter inflatis demum in zoosporangia mutantibus composito, per complures cellulas diffuso; zoosporangiis collo membranam cellulæ matricis perforante munitis; zoosporis oosporisque ignotis. 1709

Hab. in cellulis Œdogoniorum in Arduennis.

4. **Lagenidium ellipticum** De Wild. Ann. Soc. belg. Micr. 1893, p. 8. tab. I. — Unicellulare, irregulariter inflatum, collo brevi munitum; zoosporis oogoniisque ignotis; oosporis ellipticis, membrana irregulari, crassa, obtuse asperata inclusis, intus granulosis, 20-30 × 10-14. 1710

Hab. in rhizoidibus Muscorum in Belgio.

5. **Lagenidium Zopfii** De Wild. Bull. Soc. belg. Micr. 1892, p. 139. — Mycelio ramoso, irregulari, matricem transverse penetrante; oogonis ventricosis; oosporis tunica inæquali, asperula munitis, valde refrigentibus, nucleolo carentibus 14 μ. diam. 1711

Hab. in cellulis Oedogoniorum, Læken Belgii.

6. **Lagenidium papillosum** Cocc. Mem. Accad. Bol. Sez. S. N. 1894, p. 187, f. 1-3. — Affine *Lagenidio Rabenhorstii,* sed differt mycelio magis evoluto, episporio oosporarum papilloso et quia forma sexuata intra cellulas matricis solitaria occurrit. 1712

Hab. in filamentis Spirogyræ cujusdam in Agro Bononiensi Ital. bor.

LAGENIDIOPSIS De Wild. Ann. Soc. belg. Micr. 1896, p. 109 (Etym. a *Lagenidium* et *opsis,* facies). — Mycelium filamentosum, unicellulare, simplex, rarius ramosum, ramis parum evolutis; zoosporæ ignotæ; oogonia plus minusve globosa, a mycelio septo non divisa; antheridia oogoniis multo minora, solitaria, ramulo instructa; oosporæ globosæ v. ellipticæ, membrana crassa inclusæ.

1. **Lagenidiopsis reducta** De Wild. l. c. t. VI-VII. — Characteribus generis; oogoniis membrana levi tectis; oosporis totam cavitatem oogonii non replentibus, globosis v. ellipticis, plus minusve irregularibus, 13-19 μ. circiter diam., membrana crassa, asperitatibus numerosis brevibusque prædita, intus granulosis, interdum 1 vel 2 guttulatis. 1713

Hab. in oogoniis Characearum pr. Genevam Helvetiæ.

MONOBLEPHARIS Cornu — Syll. VII, p. 277.

1. **Monoblepharis insignis** Thaxt. Bot. Gaz. 1895, p. 438, t. XXIX, fig. 1-7. — Hyphis erectis, rigidis, hyalinis v. pallidissime rubescenti-brunneis, subcylindraceis, raro ramosis, $1\,^1/_2$-$2\,^1/_2$ mm. longis, 8-15 μ. crassis; antheridiis latis, subconicis usque subcylindraceis, approximatis v. leviter divergentibus, apice rotundato sæpe introrsum curvulis, subsymmetricis v. sæpe basi irregulariter protrusis, antherozoidiis numerosis (24-32), uniciliatis; oosporis in oogonio maturantibus, levibus, pallide succineis, sphæricis usque longe oblongis v. irregularibus, 30-45 × 22-33; oogoniis solitariis v. pluribus apice hypharum superimpositis, irregularibus; zoosporangiis paucis, oogoniis similibus; zoosporis biciliatis (?), circiter 10-12 μ. diam. 1714

   Hab. ad ramenta aqua submersa in fossis et stagnis, Massachusetts, Maine Amer. bor.

2. **Monoblepharis fasciculata** Thaxt. Bot. Gaz. 1895, p. 439, t. XXIX, fig. 8-12. — Hyphis rigidis, cylindraceis, simplicibus v. raro ramosis, apicibus exceptis, 1-2 mm. longis, 6 μ. crassis; antheridiis angustis, attenuatis, non divergentibus; antherozoidiis 16 in quoque antheridio, 3 μ. diam.; oogoniis ovalibus, oblongis v. ellipticis, collo minuto, prominente, plerumque antheridio brevioribus, terminalibus, solitariis vel in apicibus ramorum superimpositis; oosporis plus minus regulariter ovali-oblongis v. ellipticis, levibus, pallide succineis, in oogonio maturantibus, 22 × 18; zoosporangiis oogoniis similibus, antheridia gerentibus; zoosporis biciliatis, 5-6 μ. diam. 1715

   Hab. ad ramenta submersa in fossis et stagnis cum præcedente, Massachusetts, Amer. bor.

GONAPODYA Fisch. Phycom. p. 327 et 382 cum icone (Etym. *gonis* geniculum et *apodya* [ex *apodyomai* exuo me]). Mycelii hyphæ æqualiter constricto-moniliformes, non septatæ, ramosæ; sporangia terminalia; zoosporæ solitariæ, uniciliatæ; oogonia terminalia; oosporæ solitariæ, in oogoniis maturantes. — *Myriobleparidi* peraffinis.

1. **Gonapodya siliquæformis** (Reinsch) Thaxt. Bot. Gaz. 1895, p. 480, tab. XXXI, fig. 6-10; *Saprolegnia siliquæformis* Reinsch, Jahrb. wiss. Bot. XI, p. 293; *Gonapodya prolifera* Fisch. Phycom. p. 382; *Monoblepharis prolifera* Cornu Rem. sur quelqu. Saprol. nouv. in Bull. Soc. Fr. 1877, p. 226; Sacc. Syll. VII, p. 277. — Hyphis firmis, 250-500 μ. longis, in segmenta elliptica v. longe clavata 1716

circiter 25 × 14 μ, metientia plus minus regulariter divisis, copiose subumbellateque ramosis; sporangiis proliferis, longe siliquæformibus, maximis, circiter 130 × 22 μ., interdum usque ad 250 μ. longis, infra inflatis, sessilibus; zoosporis numerosis, uniciliatis, ovalibus v. ellipticis, conspicue nucleatis; oosporis ovalibus, hyalinis.

Hab. in fructibus putridis aqua immersis in Germania, Gallia et America boreali.

2. **Gonapodya polymorpha** Thaxt. Bot. Gaz. 1895, p. 481, t. XXXI, fig. 11-16. — Hyphis irregulariter ramosis, 200-1000 μ. longis, in segmenta ovalia v. irregularia, interdum obsoleta divisis; sporangiis variis, longe ovalibus, apicem versus abrupte attenuatis, solitariis vel ex uno segmento pluribus adscendentibus, proliferis; zoosporis variis, interdum biciliatis. 1717

Hab. in ramulis aqua submersis in America boreali.

SAPROLEGNIA Nees — Syll. VII, p. 268, IX, p. 345, XI, p. 244.

1. **Saprolegnia esocina** Maurizio in Pringsh. Jahrb. XXIX, p. 82, t. I, fig. 4-17. — Filamentis 23-46 ½ μ. diam., ramosis, ramis 7-16 μ. diam., in cæspitem rigidum demum subflaccidum aggregatis; oogoniis globosis v. oblongis, 70-82 μ. diam. vel 95-109 × 60-77 ½, membrana hyalina, tenui, punctis numerosis subprominulis prædita; oosporis plerumque numerosis in quoque oogonio (1-30), membrana tenui hyalina tectis, 21 ½-25 μ. diam. 1718

Hab. ad pisces (Esocem) in Helvetia.

2. **Saprolegnia intermedia** Maurizio in Pringsh. Jahrb. XXIX, p. 97, tab. II, fig. 37-51*a*. — Filamentis 34-36 ½ μ. diam., ramosis, ramis 6-15 ½ μ. diam., in cæspitem tenuem circiter ¾ cm. longum aggregatis; zoosporis 11-15 ½ μ. diam.; oogoniis globosis, piriformibus v. orculæformibus, 48-113 μ. diam., membrana tenuissima, hyalina, punctata præditis; oosporis plerumque 6-10 in quoque oogonio, sed interdum etiam usque ad 40, membrana crassa hyalina tectis, 19-23 μ. diam.; antheridiis intercellularibus. 1719

Hab. in palude ad Wallensee Helvetiæ.

3. **Saprolegnia bodanica** Maurizio in Pringsh. Jahrb. XXIX, p. 107, tab. II, fig. 52-59. — Filamentis 31-47 μ. diam., ramosis, ramis 4 ½-15 ½ μ. diam., in cæspitem ca. 2 cm. longum tenuem, latissimum aggregatis; antheridiis nullis; oogoniis globosis, rarius oblongis, 54-93 μ. diam. vel 108 × 88, membrana tenui hyalina, punctis numerosis minutis subprominulis prædita; oosporis in quoque 1720

oogonio numero variis (4-30), membrana crassa flava tectis, 23 $^1/_2$-31 μ. diam.

Hab. in palude ad Bodensee Helvetiæ.

ACHLYOPSIS De Wild. Ann. Soc. belg. Micr. 1896, p. 121 (Etym. ab *Achlya* et *opsis*, facies). — Mycelium filamentosum, ramosum, unicellulare, rarius septis transversalibus divisum; oogonia globosa v. elliptica, apice ramorum insidentia, septo transversali a mycelio divisa; antheridia numerosa, interdum oogonium perfecte circumdantia; oosporæ solitariæ, totam oogonii cavitatem subreplentes.

1. **Achlyopsis entospora** De Wild. l. c. tab. IX, fig. 1-11. — Characteribus generis; antheridiis ramosis; oosporis globosis v. ellipticis, 21-37 μ. diam., membrana percrassa inclusis, 1-4-guttulis oleosis præditis. 1721

Hab. in oogoniis Characearum pr. Genevam Helvetiæ. — Genus adhuc vere dubium.

RHIPIDIUM Cornu — Syll. VII, p. 268.

1. **Rhipidium americanum** Thaxt. Bot. Gaz. XXI, 1896, p. 327, t. XXI, fig. 1-15. — Cellula basali variæ formæ et magnitudinis, 75-400 μ. longa, hyphopodiis rhizoideis numerosis affixa, apice plus minus regulariter dichotome ramosa v. lobata, ramis v. lobis erectis v. radiantibus, in hyphas multas apice dissectis; hypharum segmentis subclavatis, 50-800 μ. longis; zoosporangiis typice ovoideis, sursum acutatis, apice rotundatis, erectis, circiter 50 × 35, sed valde in magnitudine variantibus; oogoniis terminalibus, sphæricis, 40-55 μ. diam.; oosporis pachydermis, 30-45 μ. diam.; hyphis antheridialibus brevibus, gracilibus, antheridio minuto, rotundato. 1722

Hab. in plantarum partibus aqua immersis, America bor.

ARAIOSPORA Thaxt. Bot. Gaz. XXI, 1896, p. 326 (Etym. *araios*, rarus et *spora*). — Planta e cellula basali magna formata, hyphopodiis rhizoideis affixa, apice in hyphas multas dissecta. Hyphæ repetite umbellato-ramosæ, subcylindraceæ. Zoosporangia in apicibus hypharum orta, spinosa aut inermia. Zoosporæ minute granulosæ, 2-ciliatæ. Oogonia umbellata v. verticillata, globosa. Oosporæ solitariæ, pachydermæ. Hyphæ antheridiales in hyphis discretis ortæ, simplices v. ramosæ.

1 **Araiospora spinosa** (Cornu) Thaxt. l. c., *Rhipidium spinosum* Cornu — Sacc. Syll. VII, p. 268.

Hab. in aqua lente fluenti in Gallia.

2. **Araiospora pulcra** Thaxt. l. c. pag. 328, tab. XXIII, fig. 20-25. 1723
— Cellula basali magna, subcylindracea, apice subconico, ramoso, ramis numerosis, acropleurogenis, e segmentis plus minus cylindraceis, repetite umbellato-ramosis compositis; zoosporangiis umbellatis v. verticillatis, 125 × 30, subcylindraceis v. late clavatis et levibus vel late ovalibus usque piriformibus et spinis 10-35 μ. longis radiantibus vestitis; oogoniis umbellatis v. verticillatis, 50-60 μ.; oosporis sphæricis, hyalino-pachydermis, cellulis periphericis cinctis, 35-45 μ.

Hab. in ramis aqua submersis in Amer. bor.

PYTHIUM Pringsh. — Syll. VII, p. 270. IX, p. 347, XI, p. 244.

1. **Pythium Hydrodictyorum** De Wild. Ann. Soc. belg. Micr. 1897, 1724
p. 22, tab. II, fig. 1-5. — Mycelio parasitico; filamentis tenuibus, irregulariter ramosis, 3 μ. circiter crassis; zoosporangiis ignotis; oogoniis numerosis, monosporis; antheridiis solitariis; oosporis levibus, globosis v. rarius ovoideis, 10-17 μ. diam., pallide luteolis.

Hab. in cellulis Hydrodictyi utriculati, Java (Massart).

2. **Pythium Characearum** De Wild. Ann. Soc. belg. Micr. 1896, p. 116, 1725
tab. VIII. — Mycelio saprophyto v. in oogoniis Characearum parasitico, 3-4 μ. diam.; zoosporangiis zoosporisque ignotis; oogoniis in filamento mycelico terminalibus, globosis v. ellipticis, membrana levi, plus minusve crassa; antheridiis solitariis v. 2-4 consociatis; oosporis globosis v. ellipticis, 20-30 μ. circiter diam., membrana levi, crassa inclusis, solitariis.

Hab. in oogoniis Charæ pr. Genevam Helvetiæ.

3. **Pythium ? gibbosum** De Wild. Ann. Soc. belg. Micr. 1896, p. 119, 1726
tab. XII, fig. 11-15. — Oogoniis globosis v. ovoideis, 21 μ. circiter diam., membrana irregulariter gibbosa tectis; antheridiis nondum visis; oosporis 13 μ. diam.

Hab. in oogoniis Charæ pr. Genevam Helvetiæ. — Species omnino incerta.

MYRIOBLEPHARIS Thaxt. Bot. Gaz. 1895, p. 484. (Etym. *myria* multitudo et *blepharis* cilium). — Hyphæ graciles, parce ramosæ; zoosporangia terminalia, prolifera; zoosporæ multiciliatæ, magnæ, e contentu sporangiorum divisione oriundæ. — *Pythio* subaffinis.

1. **Myrioblepharis paradoxa** Thaxt. l. c. tab. XXXI, fig. 1-5. — 1727
Characteribus generis; hyphis gracilibus, flexuosis, 1-2 ramosis,

circiter 1 mm. longis, 4-5 μ. crassis; zoosporis late ovalibus v. oblongis, 20-30 × 18-20.

Hab. in ramentis aqua submersis in America boreali.

SAPROMYCES Fritsch, Oest. B. Z. 1893, p. 420; Thaxt. Bot. Gaz. 1896, p. 329, (Etym. *sapros* putris et *myces* fungus) *Nægelia* Reinsch Jahrb. Wiss. Bot. 1876, p. 289. — Syll. XI, p. 245. — *Nægeliella* Schröt. Pflanzenfam. I, p. 103. — Affinis *Araiosporæ*. Zoosporangia oblonga, levia. Zoosporæ ut in *Araiospora*. Oogonia umbellatim disposita, piriformia; oosporæ solitariæ. Antheridia elongata, curvata. Planta nunc androgyna, nunc heterogyna.

1. **Sapromyces androgynus** Thaxt. Bot. Gaz. XXI, 1896, p. 329, tab. XXII, fig. 16-19. — Oogoniis piriformibus, 27-30 × 35-50; oosporis sphæricis, 20-26 μ. diam., hyalino-pachydermis; zoosporangiis circiter 75 × 26; hyphis antheridialibus juxta oogoniorum basim oriundis. 1728

Hab. in ramis aqua submersis, America bor.

2. **Sapromyces Reinschii** (Schröt.) Fritsch l. c., Thaxt. l. c. *Nægeliella* Schröt. l. c. — Verticillato-ramosa; sporangiis elliptico-oblongis verticillatim quaterno-senis; sporis 6 μ. long., ellipsoideis; sporis aliis (oosporis?) globosis, crassiuscule tunicatis, 11-17 μ. diam. 1729

Hab. in caulibus putridis Visci etc. aqua immersis in Germania, Amer. bor.

3. **Sapromyces dubius** Fritsch l. c. *Nægelia* spec. II Reinsch, Fisch. Phycom. p. 378. 1730

Hab. in Algis viridibus in Germania. — Forte status junior præcedentis.

4. **Sapromyces elongatus** (Cornu) Thaxt. l. c. *Rhipidium elongatum* Cornu, Syll. VII, p. 268.

BLASTOCLADIA Reinsch — Syll. XI, p. 245.

1. **Blastocladia ramosa** Thaxt. Bot. Gaz. 1896, p. 50, tab. III, fig. 14-16. — Axi primario subcylindrico, 14-20 μ. diam., basi divisionibus rhizomatoideis dense fasciculatis, tenuibus, ramosis aucto, sursum copiose irregulariter v. subdichotome ramoso; sporangiis in ramulorum apicibus oriundis, late ovalibus, punctatis, 30 × 15; sporangiis perdurantibus terminalibus, rotundatis, basim versus gradatim angustioribus et truncatis, circiter 30 × 11. 1731

Hab. ad ramos demersos in paludibus, Maine Amer. bor.

DELACROIXIA Sacc. et Syd. *Boudierella* Cost. Bull. Soc. Myc. de 1732
France 1897, p. 38, tab. IV-V, nec Sacc. (Etym. a cl. mycologo gallico Georg. Delacroix). — Conidia e basidiis vehementer projecta; conidia secundaria ad superficiem conidii primarii in basidiis brevibus acrogena.

1. **Delacroixia coronata** (Cost.) Sacc. et Syd. *Boudierella coronata* Cost. 1733
l. c. — Saprophytica; mycelio nullo v. obsoleto; conidiis globosis 26-45 μ.; conidiis secundariis radiantibus.

Hab. inter lamellas Agarici campestris, verisimiliter ad parva insecta, in Gallia.

PLASMOPAROPSIS De Wild. Ann. Soc. belg. Micr. 1896, p. 124 (Etym. a *Plasmopara* et *opsis,* facies). — Mycelium filamentosum, ramosum, e duabus partibus compositum; pars altera irregularis in interiore oogoniorum Characearum, copiose ramosa, altera extra oogonium rigida, erecta, dichotome ramosa; zoosporangia apicibus ramorum lateralium insidentia, vertice aperta.

1. **Plasmoparopsis rigida** De Wild. l. c. tab. X et XI, fig. 5-8. — 1734
Mycelio externo 3-4 μ. diam.; zoosporangiis in apice ramorum solitariis v. binis trinis consociatis, piriformibus, a mycelio interdum septo transversali divisis, 16-20 μ. latis, 23-32 μ. longis.

Hab. in oogoniis Characearum pr. Genevam Helvetiæ.

Fam. 5. Peronosporaceæ.

DREPANOCONIS Schroet. et P. Henn. (Etym. *drepanon* falx et *conia* pulvis) Hedw. 1896, p. 211. — Mycelium intercellulare. Sori epidermide primo tecti, dein erumpentes, pulvinato-effusi. Conidia ovoidea, oblonga, plerumque curvata, vermiformia hyalina.

1. **Drepanoconis brasiliensis** Schroet. et P. Henn. l. c. — Soris folii- 1735
vel caulicolis, bullatis, primo epidermide infuscata velatis dein erumpentibus, pulvinato-effusis, cretaceis, subpulverulentis; conidiis ovoideis, clavatis vel oblongis, rectis, plerumque curvatis, vermiformibus, hyalinis, 2-6 grosse guttulatis, 10–28 × 8–16 episporio levi, hyalino.

Hab. in foliis ramisque Nectandræ oppositifoliæ duobus locis in Brasilia (Ule).

CYSTOPUS Lév. — Sacc. Syll, VII, p. 233, IX, p. 340, XI, p. 242.

1. **Cystopus Solivæ** (Schroet.) Sacc. et Syd. *Albugo Solivæ* Schroet. Hedw. 1896, p. 210. — Soris amphigenis sparsis vel aggregatis albis vel subflavescentibus pustulatis 0,5-3 mm. diametro, cuticula vesiculosa tectis; conidiis subglobosis, 20-22 × 18-20; episporio hyalino, medio annulato-incrassato; oosporis subglobosis, atro-castaneis, 60-66 μ., episporio minute reticulato. 1736

   Hab. in foliis Solivæ anthemidifoliæ in prov. St. Catharina Brasiliæ (Ule).

PERONOSPORA Corda. — Syll. VII, p. 244, IX, p. 342, XI, p. 243.

1. **Peronospora Ficariæ** Tul.-Sacc. Syll. VII, p. 251. — ***P. glacialis** Blytt, Christiania Vid. Selsk. Forh. 1896, n. 6, p. 20. — Hyphis conidiophoris epiphyllis (h. e. in pagina foliorum superiore); conidiis niveis; oogoniis et oosporis ut in *P. Ficariæ* typica, a qua tantum notis supra indicatis differt. 1737

   Hab. in foliis Ranunculi glacialis, Dovre, Norvegia.

2. **Peronospora megasperma** Berl. Icon. fung. Phycom. pag. 21, t. XXIV, *P. Violæ* E. et Ev. N. A. F. n. 2207, nec De By. — Cæspitulis effusis, albescentibus; conidiophoris erectis, 300-400 × 9-10, ter-5-ies ramosis, ramis ultimis elongatis, cylindraceis, apice truncatis; conidiis magnis, obovoideis, superne late papillatis, 80-95 × 40-45, hyalinis; oogoniis globulosis v. sæpius pressione polyhedricis, magnis 48-54 μ. d. tunica crassa amoene lutea v. fusco-lutea; oosporis globosis 36-40 μ. diam. pallide lutescentibus, perinio a periplasmate sat concreto lutescenti-fuscidulo v. brunneo-fulvescente formato diu adhærente, tectis. 1738

   Hab. in foliis Violæ tricoloris var. arvensis in Amer. bor.

3. **Peronospora leptosperma** De By.-Sacc. Syll. VII, p. 254. — Var. **Siegesbeckiæ** Lagh. Bull. Boiss. 1895, p. 61. — Strato albo, laxo; conidiophoris arborum modo divisis, 200-300 μ. altis, 10 μ. crassis, corona ramis plerumque tribus, cylindricis, rectis, erecto-patentibus, ramulis ultimis 6-12 μ. longis, rectis, subulatis, angulo recto patentibus; conidiis ovali-globosis, 27-30 μ. diam., membrana achroa; oosporis ignotis. 1739

   Hab. in foliis vivis Siegesbeckiæ in Æquatoria.

4. **Peronospora Alchemillæ** Otth, Bern. Mittheil. 1868, p. 65. — Hyphis quinquies dichotomis, ramulis ultimis subulatis, sæpius inæqualibus, altero nempe longiore et subporrecto, altero laterali 1740

breviore et recurvo; conidiis fuscidulis 13 μ. diam. v. ellipsoideis ad 19 μ. longis; oosporis ignotis.

Hab. in pag. inf. foliorum Alchemillæ vulgaris pr. Bern Helvetiæ. — An var. *Per. Potentillæ* De Bary?

5. **Peronospora Podagrariæ** Otth ap. Trog, Mitth. Nat. Gesell. Bern. 1741
1857, p. 45. — Hyphis diaphanis, rectis, strictis, ramulis paucis patulis brevibus, apice in lobulos patentes ternos v. quaternos divisis; conidiis in quoque lobulo solitarie acrogenis, majusculis, globulosis, intus granulosis, hyalinis.

Hab. in pag. inf. foliorum Ægopodii Podagrariæ, Bern Helvetiæ. — An diversa a *Plasmopara nivea?*

6. **Peronospora Corollæ** Tranzsch. Hedw. 1895, p. 214. — Cæspi- 1742
tulis laxis, griseis; hyphis conidiophoris solitariis, inter duas epidermidis cellulas vel e stomatibus emergentibus, basi bulbiformiter tumidis, longissimis, 300-470 μ., ætate membrana sordide-grisea, sursum 4-6-ies dichotomis; ramis erectis, ramulis ultimis erectis, subulatis acutisque; conidiis magnis, oblongo-ellipsoideis, basim versus angustatis, apice acutiusculis, sordide violaceis, 32-40 × 17-20, plerumque 36 × 18 μ.; oosporis cum episporio 32-36 μ. diam.; episporio castaneo, crasso, anguloso-plicato.

Hab. in corollis vivis Campanulæ persicifoliæ, Gouv. Nowgorod, Rossia.

7. **Peronospora Giliæ** Ell. et Ev. Contr. U. Nat. Herb. III, n. 4. 1895, 1743
p. 276. — Hypophylla; byphis laxe intricatis, griseis; fertilibus erectis, firmis, 300-400 × 8-10, sursum 3-4 dichotomo-ramosis; ramis ramulos breves leniter curvatos 10-15 μ. longos, apicibus sæpe bifidis, gerentibus; conidiis ellipticis, levibus, hyalinis v. subhyalinis, 18-22 × 12-15; oosporis globosis, flavo-brunneis, 30-45 μ. diam., episporio crasso, dense subreticulato, tuberculoso-aspero præditis.

Hab. in foliis Giliæ in Amer. bor.

8. **Peronospora Plantaginis** Underw. Bull. Torr. Bot. Cl. 1897, p. 83. 1744
— Cæspitulis foliicolis, 1-3 cm. latis; hyphis conidiophoris plerumque solitariis, longe exsertis, irregulariter 5-6-ies dichotomis; ramulis ultimis brevibus, inæqualibus, recurvis, 4-12 μ. longis; conidiis anguste ovalibus v. limoniformibus, utrinque acutis, obscuris, 40-44 × 16-18; oosporis nondum visis.

Hab. in foliis Plantaginis aristatæ, Alabama Amer. bor.

9. **Peronospora Seymourii** Burr. Bull. Torr. Bot. Cl. 1897, p. 83. 1745
— Maculis sparsis, albis, foliicolis v. caulicolis; hyphis mycelicis effusis, haustoriis torulosis; hyphis conidiophoris gracilibus, 7-8-

ies dichotomis; ramis flexuosis, subulatis, apicibus brevibus; conidiis subglobosis v. ellipticis, 12-18 × 14-27, brunneolis; oogoniis membrana crassa brunneola, usque ad 70 μ. diam.; oosporis obscure brunneis, opacis, crasse tunicatis, asperis, 27-45. μ.

Hab. in foliis et caulibus Houstoniæ spec., Illinois Amer. bor. (Seymour).

10. **Peronospora Whippleæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 364. — Mycelio hypophyllo, effuso, sordide griseo; hyphis fertilibus 250-350 μ. altis, 3-4 ramis dichotomis præditis, in apicem simplicem v. bifidum abeuntibus et plerumque apice ramulum brevem lateralem erectum, 6-8 μ. longum gerentibus; conidiis breve ellipticis, brunneolis, levibus, 18-22 × 12-15; oosporis ignotis. 1746

Hab. in foliis Whippleæ modestæ, California (Blasdale).

11. **Peronospora cannabina** Otth, Bern. Mittheil. 1868, p. 63, Massal. Peron. d. Canap. Ferr. 1898, c. tab. — Cæspitulis cinereo-violascentibus; hyphis inæqualiter bis ter ramosis, 100-240 × 8-10, ramulis divaricatis subulatis; conidiis ellipsoideis, 30-36 × 16-20, griseolis, dein brunneo-violaceis; oosporis ignotis. 1747

Hab. in pag. inf. foliorum Cannabis sativæ pr. Steffisburg Helvetiæ et in agro Ferrariensi Italiæ.

12. **Peronospora Maydis** Racib. Ber. Deutsch. Bot. Ges. 1897, p. 475 cum fig. — Maculas albas v. albo-flavas efficiens; mycelio haustoriis numerosis globosis v. tuberculiformibus instructo; hyphis conidiophoris numerosis, 0,3 mm. altis, 25 μ. crassis, 1-3 dichotomo-ramosis, erectis; ramis patentibus, apice lobatis; conidiis in apicibus loborum oriundis, globosis, 15-18 μ. diam.; oogoniis in vaginis foliorum evolutis, globosis, 18-25 μ. latis, membrana persistenti, verrucis conicis tecta; oosporis globosis, 14-24 μ. latis, membrana levi. 1748

Hab. in foliis, vaginis et culmis Zeæ Maydis in Java.

13. **Peronospora Niessleana** Berl. Icon. fung. Phycom. pag. 40, tab. LXVI, f. 1, *P. Phyteumatis* Niessl nec Fuck., verisimillime est *P. parasitica* (Pers.) Tul. Matrix est *Alliaria* nec *Phyteuma* ut eruitur ex spec. orig. Niessleano in herb. Sacc.

PLASMOPARA Schröt. — Syll. VII, p. 239, IX, p. 342, XI, p. 243.

1. **Plasmopara Epilobii** (Otth) Schröt. — Syll. VII, p. 243. Ita dicenda est, nam *Peronospora Epilobii* Otth Bern. Mitth. 1868, p. 63, præcedit homonymam Rabenh. F. Eur. n. 1747 (1874). Quoad locum, adde Helvetiam (Otth).

SCLEROSPORA Schröt. — Syll. VII, p. 238, IX, p. 341.

1. **Sclerospora Kriegerjana** P. Magn. Verh. d. Ges. Deutsch. Naturf. u. Ærzte. 67. Vers. zu Lübeck. 1895, p. 100. — Mycelio intercellulari secus fibras foliorum effuso, hinc inde distincte intumescente, haustoriis destituto; oogoniis numerosis, tunica crassa areolisque duabus instructis, 60-65 μ. diam.; oosporis 50-55 μ. diam. 1749

Hab. in foliis languentibus Phalaridis arundinaceæ prope Königstein Saxoniæ (Kriegër). — A *Sclerospora macrospora* et *graminicola* differt oogoniis majoribus.

PYRENOMYCETÆ Fr. emend.

Syll. I, p. 1, IX, p. 364, XI, p. 252.

Fam. 1. **Perisporiaceæ** Fr.

Trib. 1 **Erysipheæ** Lév.

UNCINULA Lév. — Syll. I, p, 6, IX, p. 366, XI, p. 252.

1. **Uncinula adunca** (Wallr.) Lév.-Sacc. Syll. I, p. 7. — Var. **Epilobii** 1750
Vestergr. Bot. Notis. 1897, p. 256. — Mycelio evanido; perithe-ciis per appendices cauli foliisque arcte adnatis, plus minusve sparsis, orbiculari-depressis, verruculosis, 125-150 μ. diam.; appen-dicibus numerosissimis, simplicibus, valde uncinatis, parce septatis, hyalinis, ad 125 μ. longis; ascis 6-9 in quoque perithecio, subpi-riformibus, 4-5-sporis; sporidiis ellipsoideis v. ovatis, granulis ma-jusculis repletis, 25-34 × 14-18.

Hab. in caulibus foliisque vivis Epilobii angustifolii in regione Upsaliensi Sueciæ.

SPHÆROTHECA Lév. — Syll. I, p. 3, IX, p. 364.

1. **Sphærotheca tomentosa** Otth, Bern. Mittheil. 1865, p. 168. D. Sacc. Contr. fl. mic. Schemn. p. 17, t. V, f. 1; *Erysiphe gigantiasca* Thüm. et Sorok. (1877), Syll. fung. I, pag. 18, *Sphærothcea gigan-tiasca* Bäuml. in Beitr. zur Pilzfl. des Presb. Com. n. 1110, p. 132.

Hab. in pag. inf. foliorum et caulibus Euphorbiæ dulcis, E. platyphyllæ, et E. palustris in Helvetia, Germania, Hungaria, Rossia. — Subiculum tomentosum, albidum. Perithecia subimmersa, appendiculis rufis a subiculi hyphis vix distinctis. Ascus unicus 120–140 × 65-75; sporidia octona, globulosa, 15-25 diam.

ERYSIPHELLA Peck. — Syll. I, p. 23.

3. **Erysiphella Carestiana** Sacc. Malpighia XI, 1897, pag. 282. — 1751
Peritheciis superficialibus, remote sparsis, globoso-depressis, asto-mis, atro-nitidis, sed non levissimis, 206 μ. diam. exappendiculatis, contextu e cellulis dilute umbrinis, 15-20 μ. diam. conflato; ascis

in quoque perithecio 10-20, ovatis, basi breviter stipitato-apiculatis, 60-70 × 30-36, typice bisporis, e thalamio celluloso hyalino oriundis; sporidiis elliptico-ovoideis, 30 × 18, utrinque obtusulis, hyalinis, plasmate dilutissime flavido.

Hab. in pileo udo Fomitis fomentarii, Riva-Valdobbia, Italia (Carestia). Defectur appendicularum gen. *Erysiphellam* validum probat.

MICROSPHÆRA Lév. — Syll. I, p. 10, IX, p. 368, XI, p. 252. 1752

1. **Microsphæra Coluteæ** Kom. Fungi Rossici, n. 79. — (Diagnosim non vidimus).

Hab. in foliis Coluteæ arborescentis in Rossia.

Trib. 2 **Eurotieæ** Sacc.

EUROTIUM Link — Syll. I, p. 95, IX, p. 371, XI, p. 254.

1. **Eurotium medium** Meissner, Bot. Zeit. 2, Abth. 1897, p. 356 c. fig. 1753 — Mycelio initio regulariter dichotome ramoso, toruloso, ætate aurantiaco, cellulis ventricoso-turgidis; hyphis conidiophoris plerumque non ramosis, 5-8 ½ μ. latis; sterigmatibus conicis, 13 × 6; conidiis ovalibus globosisve, maturitate episporio verrucoso instructis, 7-12 × 6-10; peritheciis plerumque globosis, sulphureis, 83-125 μ. diam.; ascis globosis v. piriformibus, octosporis, 20-25 μ. diam.; sporidiis ovalibus v. lenticularibus, levibus, hyalinis, 12 × 8.

Hab. in fluxu mucoso Platani in Germania occid.

2. **Eurotium argentinum** Speg. Rev. Agr. y Veter. La Plata 1896, 1754 p. 228. — Peritheciis sparsis v. hinc inde densiuscule gregariis, superficialibus, matrice leniter adnatis, globosis, minutis, 50-80 μ. diam., astomis, levibus, flavidis, tenuiter membranaceis; ascis perplurimis globosis, 10-12 μ. diam., dense constipatis, tunica tenuissima hyalina mox fatiscente; sporidiis e globoso ellipsoideis, 4-5 × 3-4, hyalinis, levibus, eguttulatis. — Est status ascophorus *Aspergilli argentini* Speg.

Hab. in foliis languidis v. subputrescentibus adhuc convolutis Sacchari officinarum, prov. Tucuman, Argentina.

3. **Eurotium semiimmersum** El. March. Bull. Soc. Roy. Bot. Belg. 1755 XXXIV, 1895, p. 128, tab. II, fig. 3-3*a*. — Peritheciis sparsis, nigricantibus, in fimo semiimmersis, e mycelio flexuoso fusco oriundis, minutis, 65-95 μ. diam., contextu cellulis polyhedricis minutis, densis cômposito; ascis 8-sporis, ovoideis, inferne acutis, 14 ½-

$15^1/_2 \times 10{,}8\text{-}11{,}5$; sporidiis ovoideis, regularibus, utrinque rotundatis, $4^1/_2\text{-}5 \times 2{,}8\text{-}3{,}5$, levibus, hyalinis.

Hab. in fimo suino putrido, socio Ascophano sexdecimsporo in Belgio.

ANIXIOPSIS Hansen, Bot. Zeit. 1897, p. 131, tab. II, fig. 8. — (Etym. a genere *Anixia,* cui affinis). — Perithecia globosa, astoma. Asci ovoidei v. breviter clavati, mox dilabentes; sporidia ellipsoidea, sæpe angulosa, griseo-flava, verruculosa; paraphyses 0.

1. **Anixiopsis stercoraria** Hans. l. c. *Eurotium stercorarium* Hans., Sacc. Syll. I, p. 27. — Peritheciis circiter 250 μ. diam., non pertusis, membranaceis, brunneolis; hyphis longis, ramosis; ascis ovoideis v. breviter clavatis, octosporis; sporidiis 3-5 μ. 1756

Hab. in stercore vulpino, in laboratorio etiam in stercore cuniculorum et in aliis substratis in Dania.

ALLESCHERIA Sacc. et Syd. *Eurotiopsis* Cost. Ann. Inst. Past. XI (1897) p. 1-43, nec Karst. (1889) (Etym. a cl. mycologo bavarico A. Allescher). — Perithecia globulosa, minuta, tenui-membranacea. Asci globosi. Sporidia ovata, utrinque acuta. Conidia catenulata, in sporophoris acrogena, dein ob ramulum lateralem (dein apice conidiophorum) compressa.

1 **Allescheria Gayoni** (Cost.) Sacc. et Syd. *Eurotiopsis Gayoni* Cost. l. c. 1757

Hab. in farina amylacea aliisque substantiis organicis, Paris Galliæ. — Perithecia 50-80 μ. diam. Sporidia 6×4. Conidia alba v. rosea, ovoidea, 12×10.

MYRIOCOCCUM Fr. — Syll. I, p. 29, IX, p. 373.

1. **Myriococcum spinuligerum** Penz. et Sacc. Malpighia XI, 1897, p. 388. — Peritheciis laxiuscule gregariis, globulosis, astomis, 100 μ. diam., pilosis; pilis tenerrimis, candidis, radiantibus, ramosis, 3 μ. crassis, hyalinis, spinulis calcareis, acutis, patentibus, 3 μ. longis, facile secedentibus crebre conspersis, initio totum perithecium tegentibus, tandem evanescentibus et id nudatum, rufo-fuscum demonstrantibus; perithecii contextu tenuissime parenchymatico rufescente; sporis intra perithecium conglobatis, e mutua pressione globoso-angulosis, 12-15 μ. diam., levissimis, fumoso-hyalinis, episporio tenuissimo. 1758

Hab. in ligno putrescente, udo, Java. — Genus *Myriococcum*

utpote non ascigerum hucusque repertum, ab *Eurotieis* genuinis excludendum est et probabiliter cum *Eurotiopside* Karst. inter Nectrioideas conjungendum.

CRYPTOTHECIUM Sacc. et Penz. Malpighia XI, 1897, p. 388 (Etym. *cryptos* absconditus et *thecium* pro perithecio). — Perithecia globulosa, astoma, tenui-membranacea, pallida v. læte colorata, subiculo mucedineo denso immersa pilisque vestita. Asci fusoidei, octospori, aparaphysati. Sporidia oblongo-fusoidea, continua, hyalina. — Ab *Eurotio* et aff. subiculi densi præsentia dignoscitur.

1. **Cryptothecium javanicum** Penz. et Sacc. Malp. 1897, p. 388. — Cæspitulis (subiculis) superficialibus, sparsis, 1-1 $^1/_2$ mm. diam., ochraceo-isabellinis, pulvinato-applanatis, mucedineis; peritheciis immersis, globoso-depressis, 150 μ. diam., astomis, pilosis; pilis simplicibus parceque ramosis, tenuissimis, ad apices sæpe hamatis, flavido-hyalinis, 2 μ. crassis, extus granulosis; perithecii contextu tenui, subroseo; ascis fusoideis, sessilibus, fasciculatis, aparaphysatis, 8-sporis; sporidiis oblique monostichis, tereti-fusoideis, rectis, utrinque obtusatis, 6-8-guttulatis, 12-14 × 2 $^1/_2$-3, hyalinis. 1759

Hab. in foliis putrescentibus Elettariæ, Java.

CEPHALOTHECA Fckl. — Syll. I, p. 36, IX, p. 377.

1. **Cephalotheca Francisci** Sacc. Malp. 1898, p. 206, t. VII, f. 7. — Peritheciis sparsis v. gregariis, superficialibus, subglobosis, vix 0,5 mm. diam. atro-brunneis, levissime asperulis, omnino astomis; hyphis subochraceis, inæqualibus, septulatis, subinde evanescentibus, basi cinctis; contextu perithecii parenchymatico, duriusculo, dilute brunneo; ascis in nuclei hyphis hyalinis 6-7 μ. crassis, septulatis, pleurogenis, ovoideis, demum liberis, globosis, 45-50 μ. diam., octosporis; sporidiis conglobatis, sphæricis, initio crasse tunicatis, hyalinis, levibus, 15-16 μ. diam., demum distincte et crebre verruculosis, coffeicoloribus 20-22 μ. diam., verruculis obtusis, subhyalinis. 1760

Hab. in caulibus Viciæ Fabæ mycelio parasitico jam necatis, Avellino, unde æstate 1896 misit optimus et comploratus nepos, professor Franciscus Saccardo. Species culta inde Patavii in capsula vitrea facile multiplicata est. — Eximius fungillus ab omnibus speciebus sporidiis majusculis, verrucosis dignoscitur.

HYALODERMA Speg. — XI, p. 437, XI, p. 270.

1. **Hyaloderma ? horridum** Pat. Bull. Soc. Myc. de Fr. 1896, p. 136, 1761

tab. IX, fig. 3. — Peritheciis globosis, minutis, 40-150 μ. diam., pallidissime brunneis, setulis simplicibus, acutis, rigidis, brunneis, divergentibus, 30-50 × 4-5, undique obsitis, apice perforatis; contextu indistincte celluloso; ascis clavatis, apice rotundatis, inferne in stipitem attenuatis, 35-40 × 8-10, paraphysatis; paraphysibus hyalinis, filiformibus, simplicibus v. ramosis; sporidiis fuscidulis, filiformibus (?), subimmaturis visis. — Adsunt nonnulla perithecia ascis destituta, sporulis hyalinis, tricuspidatis, 15-23 × 2-3.

Hab. in Meliola quadam ad folia Gymnosporiæ, Tonkin (Bon).

Trib. 3. **Perisporieæ** Sacc.

MELIOLOPSIS Sacc. — Syll. I, p. 68, IX, p. 375.

1. **Meliolopsis usambarensis** Rehm in P. Henn. Pilz. Ostafr. p. 31. 1762
— Peritheciis in plagas crustaceas longe lateque effusis confertis, globosis, sessilibus, nigerrimis, parenchymatice e cellulis latis nigro-fuscis contextis, membranaceis, 0,2-0,4 mm. diam., pilis simplicibus, strictis, rigidis, acutis, septatis, nigro-fuscis, 250-350 μ. longis, basi 18-24 μ. latis obsessis, integris, poro haud perspicuo siccis apice umbilicatis; ascis creberrimis, tenerrimis, fusiformibus, in stipitem tenuissimum elongatis, par. sporif. 18-21 × 6-7 μ., stipite 21 μ. longo, 8-sporis; sporidiis globosis, unicellularibus, glabris, hyalino-flavidulis, 2-2 $^1/_2$ μ. diam., distinctis.

Hab. in ramulis emortuis in Africa trop. (Holst).

DIMEROSPORIUM Fuck. — Syll. I, p. 51, IX, p. 101, XI, p. 257.

1. **Dimerosporium Magnoliæ** Tracy et Earle, Bull. Torr. Bot. Club. 1763
1895, p. 175. — Maculis minutis, indefinitis, epiphyllis; mycelio ex hyphis obscure brunneis, irregulariter ramosis, septatis formato; conidiis clavatis, obscure tinctis, 4-5-septatis, 45-55 × 7-8; peritheciis depresso-hemisphæricis, nigris, plerumque 5-10-consociatis, astomis, 50-100 μ. diam.; ascis numerosis, late ovalibus v. obovatis, octosporis, 45-50 × 35-40; paraphysibus filiformibus, apicem versus coloratis; sporidiis distichis, ex hyalino obscure fuligineis, obovatis, uniseptatis, ad septum constrictis, 20-23 × 9-10.

Hab. in foliis vivis Magnoliæ virginianæ, Mississipi, Amer. bor.

2. **Dimerosporium Oncobæ** P. Henn. Engl. Jahrb. XXIII, p. 537. 1764
— Mycelio epiphyllo, repente, effuso, atro, ramoso, septato; pe-

ritheciis e mycelio erumpentibus, gregariis, subglobosis, atris, 120-200 μ. diam.; ascis clavatis, obtusis, substipitatis, 8-sporis, 50-80 × 15-18; sporidiis conglobatis, subfusoideis v. clavatis, hyalinis, medio 1-septatis, vix constrictis, 20-30 × $4^1/_2$-5.

Hab. in foliis Oncobæ spec. in Camerunia (Zenker).

3. **Dimerosporium Bosciæ** P. Henn. Ann. del R. Istit. di Roma VI, Fasc. 2, p. 87. — Maculis amphigenis rotundatis, sæpe confluentibus, nigris; peritheciis dense aggregatis, crustaceo-membranaceis, aterrimis, c. 60 μ. diam.; ascis oblongis, ovoideis, subclavatis, obtusis, subsessilibus, 8-sporis, 25-40 × 15-23; sporidiis conglobatis v. oblique distichis, ovoideis, medio septatis, constrictis, hyalino-fuscidulis, 12-14 × $5\text{-}6^1/_2$. 1765

Hab. in foliis Bosciæ somalensis in Somalia.

4. **Dimerosporium Salaciæ** P. Henn. Hedw. 1895, p. 105. — Epiphyllum; mycelio effuso, repente, atro, nudo oculo inconspicuo, filis torulosis, ramosis, atris, 6-8 μ. crassis; peritheciis aggregatis, subhemisphæricis, atris, ambitu subradiato, 180-200 μ. diam.; ascis subglobosis v. late ovoideis, sessilibus, octosporis, 24-28 μ.; sporidiis conglobatis, oblongis, utrinque obtusis, medio septatis, valde constrictis, hyalinis, 21-24 × 8-10, loculis æquilongis, 9-11 × 8-10, 1766

Hab. in foliis vivis Salaciæ spec. in prov. Goyaz Brasiliæ (Ule).

5. **Dimerosporium punctiforme** P. Henn. Hedw. 1897, p. 217. — Peritheciis amphigenis minutis, sparsis, singularibus, punctiformibus, atris, globosis, 45-55 μ. diametro, basi filis repentibus, fuscis ramosis, 4-6 μ. crassis; ascis 8-sporis, ovoideis, subsessilibus, 18-28 × 14-22; sporidiis conglobatis ovoideis vel ovoideo-subfusiformibus, 1-septatis, constrictis, hyalino-flavescentibus, 8-11 × 5-6 1767

Hab. in foliis Baccharidis spec. pr. Blumenau Brasiliæ (Moeller).

6. **Dimerosporium baccharidicolum** P. Henn. Hedw. 1897, p. 217. — Mycelio brevi repente e filis brunneis, septatis, interdum ramosis; peritheciis globosis, atrocarbonaceis, minutis, sparsis, 100-140 μ. diametro; ascis late clavatis vel oblique ovoideis, 8-sporis, 22-30 × 10-14; sporidiis subdistichis vel conglobatis, oblongis vel subovoideis, 1-septatis, ad septum constrictis, fuscis vel atrofuscis, utrinque obtuso-rotundatis, 8-11 × 5-6 1768

Hab. in foliis Baccharidis triplinervis in prov. St. Catharina Brasiliæ (Möller).

7. **Dimerosporium annulatum** Rehm, Hedw. 1896, p. 53. — Perithe- 1769

ciis epiphyllis, foliorum vivorum superficie haud mutata insidentibus, maculas rotundas confluentesque, 2-5 μ. diam. formantibus ibique circinatim congregatis, subglobosis, glabris astomis, parenchymatice contextis, 90-120 μ. diam., basi hyphis radiantibus 10-20 obsessis; hyphis subrectis, simplicibus, septatis, fuscis, ad finem dilutioribus acutatisque, 180 × 5; ascis ellipticis, sessilibus, apice obtusatis, 30-40 × 8, octosporis; sporidiis subclavatis, obtusis, rectis, 2-cellularibus, interdum guttulis 4 oleosis præditis, interdum medio subconstrictis, hyalinis, 9 × $2^1/_2$-3, distichis; paraphysibus ramosis, septatis, hyalinis, 2 μ. crassis.

Hab. in foliis vivis Erigerontis maximi, Itatiaia Brasiliæ (Ule).

8. **Dimerosporium Englerianum** P. Henn. Pilz. Ostafr. p. 31. — Mycelio effuso, atro, crustaceo-velutino, ramos deformante, pilis septatis, ramosis, brunneo-rufescentibus; peritheciis subscutellatis v. subcupulatis, umbilicato-depressis, densis, atris, setulosis, circ. 0,3 mm. diam.; ascis cylindraceo-clavatis, sæpe curvulis, paraphysatis, 8-sporis, obtusis, 100-130 × 12-15; sporidiis oblique monostichis v. subdistichis, oblongis v. subfusoideis, uniseptatis, utrinque obtusis, medio vix constrictis, flavis, dein fuscis, septis uni-pluriguttulatis, 18-25 × 7-10. 1770

Hab. in ramis, quos deformat, Ericinellæ Mannii in Africa trop. (Volkens).

9. **Dimerosporium Elliotii** A. L. Smith, Journ. of Bot. 1895, p. 342. — Peritheciis gregariis vel sparsis, superficialibus, minutis, 160 μ. diam., atro-brunneis, globosis, undique hyphis exiguis fuligineis instructis; ascis cylindraceo-clavatis, 55 × 8-10; paraphysibus filiformibus; sporis ovoideis, 1-septatis, medio constrictis, hyalino-viridulis, 16 × 6-8. 1771

Hab. in foliis Ericæ arboreæ in Africa orient. (Elliot).

10. **Dimerosporium Forsteroniæ** P. Henn. Hedw. 1895, p. 105. — Hyphis repentibus amphigenis, ramosis, fusco-brunneis, septatis; peritheciis dense gregariis, pulvinatis v. subhemisphæricis, ca. 100 . diam., atris, levibus; ascis ovoideis, octosporis; sporidiis conglobatis, ellipsoideis v. subovoideis, medio uniseptatis, paulo constrictis, 17-24 × 13-15, atris. 1772

Hab. in foliis vivis Forsteroniæ spec. in prov. Goyaz Brasiliæ (Ule).

11. **Dimerosporium Echitis** Allesch. Hedw. 1897, p. 235. — Peritheciis epiphyllis, superficialibus, mycelio deficiente v. inconspicuo, 1773

carbonaceis, astomis, depresso-hemisphæricis, magnitudine varia, 80-140 μ. diam., nigris; ascis ovoideis, octosporis, sessilibus, ca. 30-35 × 20; sporidiis oblongis, uniseptatis, parum constrictis, ex hyalino chlorinis, ca. 10 × 5.

Hab. in pagina superiore foliorum Echitis spec. pr. Goyaz Brasiliæ (Glaziou).

12. **Dimerosporium hamatum** Penz. et Sacc. Malpighia XI, 1897, 1774
p. 389. — Late et sæpe circulariter effusum, pannoso-velutinum, hyphis dendroideo-ramosis radiantibus ambitu fimbriatum; perithecciis globulosis, astomis, nigris, 180–200 μ. diam., subiculo omnino immersis, pilis radiantibus simplicibus, 300-400 × 9, apice uncinatis, aterrimis vestitis; ascis late clavatis, apice rotundatis, 110-120 × 36, breve stipitatis, 8-sporis, aparaphysatis; sporidiis distichis, obovatis, apice obtusioribus, constricto-1-septatis, 30-33 × 16-18, dilute fuligineis.

Hab. in pagina infer. foliorum subemortuorum Quercus sp., Java. — Pilis hamatis, subiculo pannoso etc. species omnino distincta.

13. **Dimerosporium coronatum** Speg. Rev. Agr. y Veter. La Plata, 1775
1896, p. 342. — Peritheciis atris, superficialibus, e globoso piriformibus, minutis, 150-200 μ. diam., crasse umbonato-ostiolatis, circa ostiolum setulis 4–8 radiantibus patulis arcuatis, 40-80 × 3-4, atris opacis vix apice pallidioribus coronatis, ceterum glabris, tenuiter membranaceis; contextu minute parenchymatico olivaceo; ascis e cylindraceo obclavatis, 60 × 10, minute brevissimeque noduloso-stipitatis, aparaphysatis, 8-sporis; sporidiis cylindraceo-ellipticis, 12-14 × 4, utrinque acutiuscule rotundatis, leniter inæquilateralibus, primo continuis, eguttulatis, dein 2-guttulatis, hyalinis (an demum 1-septatis?).

Hab. ad mycelium Capnodii trichostomi in foliis Coffeæ, Costa-Rica.

PARODIELLA Speg. — Syll. I, p. 717, IX, p. 409, XI, p. 260.

1. **Parodiella perisporioides** (B. et C.) Speg.-Sacc. Syll. I, p. 717. 1776
— * **P. asperula** Penz. et Sacc. Malpighia XI, 1897, p. 389. — A typo differre videtur peritheciis asperulis, medio rimula tenui subinde cruciata dehiscentibus; sporidiis 22-24 × 8-9, ascisque 90-100 × 15-16 paullo minoribus; peritheciis facile secedentibus.

Hab. in pag. inf. foliorum viventium Leguminosæ, Java.

2. **Parodiella consimilis** P. Henn. Hedw. 1895, p. 106. — Mycelio 1777

hypophyllo, effuso, dendritico, fusco-brunneo, subtomentoso, filis repentibus septatis, ramosis, fusco-brunneis, 6-9 μ. crassis; peritheciis aggregatis, subglobosis v. obovatis, apice depressis v. subcupulatis, rufo-brunneis v. atro-fuscis, 120-180 μ. diam.; ascis ovatis, substipitatis, aparaphysatis, octosporis, 75–100 × 35-40; sporidiis conglobatis, oblongis, obtusis, uniseptatis, parum constrictis, fusco-olivaceis, 30-38 × 16-21, loculis æquilongis.

Hab. in foliis coriaceis Myrtaceæ cujusdam in prov. Minas Geraës Brasiliæ (Ule). — *P. melioloidi* (B. et C.) Wint. affinis, sed sporidiis peritheciisque diversa.

3. **Parodiella dothideoides** Pat. Bull. Soc. Myc. de Fr. 1895, p. 221. 1778
— Peritheciis epiphyllis, dense congestis, liberis v. confluentibus, maculas atras, 1-3 mm. latas efformantibus, globosis v. compressis, 250-280 μ. latis, astomis? (sæpe apice irregulariter ruptis), basi insculptis; contextu coriaceo, brunneo-atro, celluloso; ascis globosis v. globoso-ovatis, 40-50 × 25–30, 8-sporis, ope jodii non cœrulescentibus, aparaphysatis; sporidiis brunneis, utrinque obtusis, medio septatis constrictisque, 16-20 × 6-8; mycelio radiante nullo.

Hab. in foliis Iresines in Æquatoria (v. Lagerheim)

ARGYNNA Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, p. 41. (Etym. ab *Argynnide,* papilionum genere). — Perithecia superficialia, carbonacea, subglobosa, demum reticulatim dehiscentia et hinc polyhedrica. Asci (verisim. cito difflui). Sporidia fuliginea, 1-septata, subtrapeziiformia, papilionem simulantia.

1. **Argynna polyhedron** (Schw.) Morg. l. c. tab. II, fig. 14; *Physarum polyhedron* (Schw.) N. Am. Fg. n. 2300. — Peritheciis subglobosis, gregariis, 1-1 $^1/_2$ mm. diam., nigris, opacis, basi lata sessilibus, demum reticulatim dehiscentibus et hinc polyhedricis; sporidiis fuligineis, 1-septatis, subtrapeziiformibus, 6-8 × 4-5. 1779

Hab. in ligno carioso Caryæ, Ohio Amer. bor.

MELIOLA Fr. em. — Syll. I, p. 60, IX, p. 413, XI, p. 260.

1. **Meliola pseudanastomosans** Rehm, Hedw. 1896, p. (150). — Maculis epiphyllis, orbicularibus, sparsis, 1-3 mm. diam., nigris, mycelio ex hyphis rectis, subramosis, fuscis, 5-6 μ. lat. septatis, hyphopodiis alternantibus, capitatis, retroflexis, 15-18 × 9-12 contextos; peritheciis 4-8, gregariis, sessilibus, rugulosis, glabris, fuscis, 250-280 μ. diam.; ascis ellipticis, teneris, c. 75 × 36, 2-3-sporis; sporidiis 1780

cylindraceis, utrinque rotundatis, 5-cellularibus, ad septa subconstrictis, primitus hyalinis, dein fuscis, 30-36 × 9-12.

Hab. ad folia Psoraleæ in Æquatoria, Prov. Pichincha, San Jorge (Lagerheim). — *Meliolæ anastomosanti* proxima.

2. **Meliola Villaresiæ** P. Henn. Hedw. 1897, p. 218. — Amphigena, 1781
orbicularis, nigra, 3-5 mm. diametro; hyphis erectis vel repentibus, simplicibus, rarius ramosis, 12-15 μ. crassis, atris; hyphopodiis ramosis, fasciculatis, ampulliformibus, apice obtusis, 15-25 × 8-12; peritheciis numerosis in centro, globosis, sessilibus vel breve stipitatis, 200-280 μ.; ascis oblongis, 2-sporis, vix stipitatis, 70-95 × 35-45; sporidiis cylindraceo-oblongis, utrinque rotundatis, atris, 3-septatis, constrictis, 60-75 × 20-28

Hab. in foliis Villaresiæ spec. pr. Goyaz Brasiliæ (Glaziou). — *Meliolæ corallinæ* Mont. et *M. Guignardi* Gaill. affinis, sed satis diversa.

3. **Meliola Didymopanacis** P. Henn. Hedw. 1895, p. 106. — Mycelio 1782
orbiculariter expanso, sæpe confluente, totam paginam foliorum occupante, atro, filis repentibus, ramosis, septatis, atris, 9-16 μ. crassis; peritheciis subglobosis, atris, setulosis, 160-200 μ. diam., setis subulatis, 200-260 × 9-11; ascis oblongis, bisporis, 42-56 × 20-26; sporidiis fusco-brunneis, dein atris, oblongis, 4-septatis, septis constrictis, 40-53 × 14-18.

Hab. in foliis Didymopanacis spec. in prov. Minas Geraës Brasiliæ (Glaziou).

4. **Meliola Bambusæ** Pat.-Sacc. Syll. IX, p. 427. — Var. **Atalantiæ** 1783
Pat. Journ. de Bot. 1897, p. 348. — A typo tantum setulis longioribus gracilibusque recedit.

Hab. in foliis Atalantiæ buxifoliæ, Tonkin.

5. **Meliola Mac-Alpini** Sacc. et Syd. *M. denticulata* Mc Alp. New S. 1784
Wales Fung. pag. 700, t. XXVII (Proc. Linn. Soc. N. S. W. 1897). — Epiphylla, minuta, nigra, superficialis, sparsa, velutina; hyphis rhizinoideis repentibus, hyalinis, septatis, ramosis, 2-4 μ. cr.; hyphis brunneis crassioribus, 7-8 μ. cr., valde ramosis, subinde rugulosis, ramis sæpe oppositis, ultimis copiosis, brevibus, obtusis, 1-2-septatis; appendicibus simplicibus, castaneo-atris, crasse tunicatis, rigidis, erectis, septatis, apice rotundatis et denticulatis, usque 11 μ. cr.; peritheciis globoso-depressis, atro-brunneis, 70-84 μ. diam.; ascis non observatis; sporidiis subfusoideis, 3-septatis, leviter constrictis, 19 × 4, flavido-brunneis.

Hab. ad folia Dysoxyli sp., Byaneum N. S. W. Australiæ

(Baker). — A *M. bidentata* præcipue differt appendicibus apice pluridentatis.

6. **Meliola sandicensis** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 434. 1785
— Mycelio amphigeno, plerumque hypophyllo, numeroso, plagulas suborbiculares 2-4 mm. diam., linea bene definitas efficiente; hyphis opposito-ramosis, 6-7 μ. crassis; hyphopodiis capitatis, numerosis, oppositis, minutis, 12-15 × 6-7, breve stipitatis, cellula superiore ovoidea v. subglobosa; hyphopodiis mucronatis, parcissimis, ampulliformibus, collo brevi, erecto; setulis numerosis, e mycelio ortis, partem inferiorem peritheciorum circumdantibus, 300-500 × 8-10, plerumque hinc inde incrassatis, primo pellucido-brunneis, demum subopacis, septatis, sursum gradatim attenuatis; peritheciis in mycelio sparsis, subglobosis, contextu celluloso, papillato-asperulis, subostiolatis, demum collabentibus, 150-200 μ. diam.; ascis clavato-ellipticis, 50 × 25-30, sessilibus, 2-4-sporis; sporidiis oblongo-cylindraceis, 4-septatis, ad septa constrictis, utrinque rotundatis, 33-40 × 12-15, brunneis.

Hab. in foliis Rubiaceæ cujusdam in ins. Sandwicens. (Heller). — *M. malacotrichæ* et *amphitrichæ* affinis.

7. **Meliola acervata** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 126. 1786
— Epiphylla; peritheciis globosis, 150-200 μ. diam., contextu dense celluloso, in pustulas circiter 1 mm. diam. collectis; mycelio brunneo, ramoso; hyphopodiis capitatis alternatis, obovatis, 12-14 × 8-10; hyphopodiis mucronatis minoribus, ovatis, oppositis, minus numerosis, rostro gracili, recto 6-8 μ. longo præditis; ascis ovalibus, breve stipitatis, 40 × 20, 2-4-sporis; sporidiis oblongo-cylindraceis, obtusis, 4-septatis, vix constrictis, 30-35 × 12.

Hab. in foliis Physalidis peruvianæ in ins. Sandwicens. (Heller).

8. **Meliola verrucosa** Pat. Journ. de Bot. 1897, p. 347. — Maculis 1787
epiphyllis nigris, confertis, minutis, vix 1 mm. latis; mycelio foliis dense adhærente, ex hyphis brunneis 6-8 μ. crassis, serpentinis formato; hyphopodiis capitatis distantibus, ovoideis, obtusis, stipitatis, alternis, 23 × 10; hyphopodiis mucronatis paucis; peritheciis in centro macularum 1-3 aggregatis, nigris, 150-230 μ. diam., globulosis, pariete e cellulis obtusis prominentibus composito ideoque verrucosis; ascis ovoideis, 50 × 25, bisporis; sporidiis ellipticis, rectis v. curvulis, 43 × 20, obtusis, septis 4 transversalibus munitis; setulis nullis.

Hab. in pag. sup. foliorum Euphorbiaceæ cujusdam in Tonkin.

9. **Meliola acanthopoda** Pat. Bull. Soc. Myc. de Fr. 1895, p. 222. — 1788
Mycelio epiphyllo, plagas atras, 1-2 mm. latas, orbiculares, dendriticas efficiente, ex hyphis prostratis, brunneis, 7-10 μ. latis, septatis, dendritico-ramosis; hyphopodiis capitatis, alternantibus vel suboppositis, stipitatis, inciso-lobatis v. 5-tuberculatis, 25 μ. altis, 15 μ. diam.; peritheciis globosis, 200-250 μ. diam., 1-2 centro macularum sitis, atris, rugosis, contextu grosse anguloso-celluloso, setulis paucis, brevibus, 100-120 × 10, opacis, brunneis, septulatis, apice conicis, inferne sensim inflatis, rectis v. curvulis, e basi peritheciorum ortis cinctis; ascis ellipsoideis, 2-3-sporis; sporidiis elongato-ovatis, utrinque rotundatis, 4-septatis constrictisque, 45-50 × 20.

Hab. in foliis arboris ignotæ in Æquatoria (v. Lagerheim). — *M. microthecæ* (Thüm.) affinis.

10. **Meliola subdentata** Pat. Journ. de Bot. 1897, p. 347. — Maculis 1789
sparsis, orbicularibus v. ovalibus, nigris, lanosis, foliis dense adhærentibus, 4-8 mm. diam., mycelio crustaceo, ex hyphis brunneis ramosis, septatis 10 μ. crassis composito; hyphopodiis capitatis alternis, stipitatis, globulosis, circiter 20 μ. diam.; hyphopodiis mucronatis oppositis; setulis numerosis, apice acutis, incisis v. bidentatis; peritheciis globosis, nigris, paucis, 200-250 μ. diam., pariete e cellulis magnis prominentibus composito; ascis 2-3-sporis; sporidiis ovoideis, 56 × 23, brunneis, utrinque obtusis, transverse 4-septatis, ad septa leniter constrictis.

Hab. ad folia Dracænæ in Tonkin.

11. **Meliola Arundinis** Pat. Journ. de Bot. 1897, p. 348. — Maculis 1790
sparsis nigris, 1-2 mm. latis, ovalibus; mycelio crustaceo, ex hyphis brevibus confertissimis brunneis composito; hyphopodiis capitatis rectis v. curvatis, stipitatis, 30 × 10, cellula terminali ovoidea v. rotundata; peritheciis nigris, siccis depressis, angulosis, ostiolatis, 150-200 μ. diam.; setulis e mycelio præcipueque e basi peritheciorum ortis, erectis, 200 μ. circiter longis, 10-12 μ. crassis, nigris, apice rubris pellucidisque ibique in ramulos duos divisis, interdum etiam ramulos 3-4 simplices v. divisos gerentibus; ramulis duobus 40 μ. circiter longis, divergentibus, utrinque bidentatis, rarius simplicibus, sæpe etiam uno simplici alteroque furcato; sporidiis cylindraceis v. ovoideis, utrinque rotundatis, ad septa quattuor constrictis, 40-55 × 20.

Hab. in foliis vivis Arundinis Donacis in Tonkin. — Ad *M. furcatam* proxime accedit.

CERATOCARPIA Roll. Bull. Soc. Myc. de Fr. 1896, p. 2, tab. I, fig. 3. (Etym. *ceras* cornu, et *carpos* fructus, quia sporidia appendicibus ornata). — Perithecia superficialia, minuta, globosa, astoma, membranacea, fusca, in subiculo conidiophoro dematiaceo insidentia. Asci octospori, ovati, aparaphysati. Sporidia muriformia, colorata, utrinque appendicibus ornata.

1. **Ceratocarpia Cactorum** Roll. l. c. — Peritheciis minutis, globosis, 1791
astomis, parenchymaticis, 130 μ. latis, olivaceo-fuscis, parce gregatis, e subiculo dematiaceo oriundis; ascis subglobosis, ovatis, breve stipitatis, 50-70 × 30, aparaphysatis, 8-sporis; sporidiis conglobatis, oblongis, transverse 3-7 circiter constricto-septatis, cum multis septis longitudinalibus, primo hyalinis, dein melleis, tandem olivaceo-fuscis, sæpe guttatis, rostro hyalino, recto vel curvo, plus minus longo, in utraque extremitate præditis, 20-35 × 10, rostris exceptis.

Hab. in spinis Cacti Opuntiæ emortui, Golfe Juan Galliæ.

Trib. 4. **Capnodieæ** Sacc.

LIMACINIA Neger in Johow Estud. sobre la flora de las Isl. de Juan Fernandez, Santiago 1896, p. 190 c. fig. (Etym. a *leimax,* limax, quia sæpe viscida.). Est *Capnodium* peritheciis ascophoris subglobosis (nec tereti-elongatis nec ramosis), sporidiis oblongis subtriseptatis, hyalinis v. fuscis, raro murali-divisis. — Genus sistit species capnodioideas, quæ in *Sylloge fungorum* perperam Meliolæ subjunguntur. Antennariæ species quædam forte Limaciniam quoque spectant. Ad *Limaciniam* ducendæ videntur species sequentes:

* peritheciis calvis

Limacinia fernandesiana Neger. l. c.
L. melioloides (Pat. sub *Capnodio*) Sacc. Hedw. 1897, p. XX.
L. capnodioides (Thüm. sub *Meliola*) Sacc. l. c.
L. fuliginoides (Rehm sub *Capnodio*) Sacc. l. c
L. Citri (Br. et Pass. sub *Apiosporio*) Sacc. l. c.
L. Mori (Catt. sub *Capnodio*) Sacc. l. c.
L. Abietis (Cooke sub *Apiosporio*) Sacc. l. c.
L. Penzigi (Sacc. sub *Meliola*) Sacc. l. c.
L.? Tetraceræ (F. Müll. et Thüm. sub *Meliola*) Sacc. l. c.
L. crassa (Pat. sub *Capnodio*) Sacc. l. c.

** peritheciis setosis

L. Camelliæ (Catt. sub *Fumagine*) Sacc. l. c.
L. mucronata (Mont. sub *Capnodio*) Sacc. l. c.
L. pelliculosa (B. et Rav. sub *Capnodio*) Sacc. l. c.
L. grandispora (E. et Mart. sub *Capnodio*) Sacc. l. c.
L.? fenestrata (E. et Ell. sub *Meliola*) Sacc. l. c.

1. **Limacinia fernandesiana** Neg. l. c. — Mycelio mucilaginoso fusco- 1792
nigro, ramoso-contexto, colliculoso, crasso; conidiis fusoideis pluri-
septatis, brunneis, acrogenis, 70–150 μ. longis; peritheciis ascopho-
ris subglobosis, subastomis; ascis ovatis basi acutatis, octosporis;
sporidiis distichis, ellipsoideo-oblongis, 3-septatis, non constrictis
(hyalinis?); spermogoniis ex hyphis antennarioideis oriundis globu-
losis, substipitatis; sporulis exiguis, ovoideis, continuis, hyalinis.

Hab. ad folia arborum in insula Juan Fernandez late diffusa.

2. **Limacinia Resinæ** Sacc. et Bres. Malpighia XI, 1897, p. 322. 1793
— Mycelio conidiophoro *Helminthosporii Resinæ;* peritheciis sub-
globosis in eodem mycelio interseminatis, 120-200 × 100-180, asto-
mis, atris; ascis crasse ovatis, breve et abrupte stipitatis, subocto-
sporis; sporidiis subtristichis, oblongo-ellipsoideis, utrinque rotun-
datis, 3-septatis, non constrictis, 30-32 × 12, fuscis.

Hab. in resina adhærente Laricis europææ in agro Tri-
dentino (Bresadola).

3. **Limacinia crassa** (Pat.) Sacc. Hedw. 1897, p. XX, *Capnodium* 1794
crassum Pat. Bull. Soc. Myc. de Fr. 1895, p. 223. — Mycelio atro,
ex hyphis prostratis, flavo-brunneis, ramosis, articulis subglobosis,
magnis, 16-23 μ. crassis, concatenatis composito, plagas atras, cras-
sas, irregulares formante; peritheciis ovoideis, brunneis, circiter
200–300 μ. altis, coriaceis, cellulis globosis, 20 μ. latis compositis;
ascis clavatis, apice obtusis, 70-85 × 20-25, octosporis, aparaphysa-
tis; sporidiis distichis, ellipsoideis, utrinque acutis, fuliginosis, trans-
verse triseptatis, 16-26 × 7-10.

Hab. in foliis Melastomaceæ cujusdam in Æquatoria (v.
Lagerheim).

4. **Limacinia melioloides** (Pat.) Sacc. Hedw. 1897, p. XX, *Capnodium* 1795
melioloides Pat. Bull. Soc. Myc. de Fr. 1895. p. 222. — Mycelio
atro, ex hyphis fuliginosis, repentibus, ramosis, articulatis, articulis
elongatis v. ovoideis, grosse 1-guttulatis, 5-9 μ. longis composito,
maculas atras, crustosas formante; peritheciis ovoideis, 110 × 80 μ.,

contextu celluloso, coriaceo, (cellulis ovoideis, 5-9 μ. diam.); ascis clavatis, 8-sporis, aparaphysatis; sporidiis distichis, hyalinis, elongato-oblongis, transverse 3-septatis, utrinque obtusiusculis, 18–20 × 6-7.

Hab. in foliis Urticaceæ cujusdam in Æquatoria (v. Lagerheim).

5. **Limacinia Callitris** (Mc Alp.) Sacc. et Syd. *Capnodium Callitris* Mc Alp. Proc. of the Linn. Soc. of N. S. Wales, 1896, p. 722. — Nigra, late effusa, ex hyphis atro-brunneis, repentibus, intricatis ramosis, septatis, moniliformibus, usque ad 14 μ. latis composita, ramis rigidis, brevibus, plerumque simplicibus, attenuatis; conidiis uniseptatis, oblongis v. ellipticis, variis; spermogoniis elongato-fusiformibus v. subhemisphæricis, atro-brunneis, apice viridulis, 84-130 × 50–66; spermatiis hyalinis, muco gelatinoso obvolutis, 4-4½ × 1; pycnidiis lageniformibus, obscure brunneis, ore hyalino-fimbriatis; pycnosporis ex hyalino flavo-brunneis, ellipsoideis, 5-septatis, 22-24 × 9-11, cellulis terminalibus sæpe hyalinis; peritheciis simplicibus, obscuris, irregulariter reticulatis, apice plus minusve globulosis v. ovalibus ibique in maturitate papillatis, 170-280 × 90-156; ascis fusoideo-clavatis, sessilibus, apice rotundatis, octosporis, 79 × 26; sporidiis initio hyalinis, dein pallide viridibus demumque atro-brunneis, oblongis, medio constrictis, 3-septatis, plerumque septo longitudinali percursis, 17-19 × 8-9½. 1796

Hab. in Callitre robusta, N. S. Wales Australiæ.

6. **Limacinia Lygodesmiæ** (Ell. et Ev.) Sacc. et Syd., *Capnodium Lygodesmiæ* Ell. et Ev. Proc. Acad. Philad. 1895, p. 414. — Caulicola, crustam subtilem, sordide luteo-griseam formans, ex hyphis dense septatis, 4-6 μ. crassis laxe intricatis composita; peritheciis numerosis, globosis, ovatis v. oblongo-ellipticis, 20-90 × 20-40, apice obtusis, dense celluloso-olivaceo-tunicatis; ascis non visis; sporidiis oblongo-ellipticis, non numerosis, 5-8 × 3, hyalinis. 179

Hab. in caulibus vivis Lygodesmiæ junceæ, Colorado, Amer. bor.

CAPNODIUM Mont. — Syll. I, p. 73 IX, p. 438, XI, 270.

1. **Capnodium citricolum** Mc Alp. Proc. Linn. Soc. of New S. Wales, 1896, part. IV, Sept. 30 th. p. 491, tab. XXIII-XXXIV. — Effusum, nigrum, crustaceum, sæpe totam foliorum superficiem occupans; hyphis hyalinis v. pallide viridibus repentibus, copiose ramosis, septatis, 6-8½ μ. latis, ramis ascendentibus brevibus sim- 1798

plicibus septatis, conidia hyalina v. pallide viridia continua univel biseptata sphærica ovalia v. elliptica leniter constricta, $7\,^1/_2$-24 × 4-11 metientia, interdum moniliformia gerentibus; hyphis coloratis viridi-brunneis v. atro-brunneis, septatissimis, constrictis, parce v. copiose ramosis, rigidis, $9\,^1/_2$-11 μ. latis, conidia brunnea plerumque elliptica uniseptata $7\,^1/_2$-16 × $5\,^1/_2$-$8\,^1/_2$ gerentibus; peritheciis, spermogoniis, antennariis, ceratopycnidiis ac pycnidiis intermixtis, opacis, atris, oblongis v. ovalibus v. difformibus, utrinque rotundatis, reticulatis, 112-250 × 52-112; ascis cylindraceo-clavatis, subsessilibus, apice rotundatis, 4 vel 6 vel 8-sporis, 70-80 × 19-20; sporidiis brunneis, oblongis, interdum subfusoideis, typice utrinque obtusis, circa medium constrictis, 5-6-septatis, sæpe in longitudine septatis vel oblique septatis, distichis, interdum etiam tristichis, circiter 21-24 × $8\,^1/_2$-$9\,^1/_2$; paraphysibus hyalinis, sæpe granulosis, elongato-clavatis, apice $9\,^1/_2$ μ. latis, ascos æquantibus.

Hab. in foliis Citri Aurantii et C. Limonium in Victoria, N. S. Wales, Queensland etc. Australiæ.

2. **Capnodium trichostomum** Speg. Rev. Agr. y Veter. La Plata, 1896, p. 344. — Late effusum, nigrum, pelliculosum, substrato arctiuscule adhærens, primo nudum, dein laxe breviterque setulosum, demum dense longeque hispido-lanatum; peritheciis primo simplicibus, dein sæpe ramulosis, deorsum cylindraceis, crassiusculis, 250-2000 μ. altis, 40-60 μ. crassis, subopacis, parenchymaticis, abrupto in ostiolum setiforme longissimum acutum prosenchymaticum productis; sporulis elliptico-cylindraceis, 5-12 × $2\text{-}3\,^1/_2$, utrinque obtusiusculis, medio sæpe coarctatulis, primo continuis, hyalinis, dein chlorinis atque 1-septatis; mycelio ex articulis brevibus cylindraceis obtusis 10-15 × 5-10, medio coarctatulis, grosse biguttulatis, olivaceis efformato. 1799

Hab. in foliis ramisque Coffeæ arabicæ, quam maxime vexat, Costa-Rica. [Rubiaceæ]

3. **Capnodium Coffeæ** Pat.-Sacc. Syll. XI, p. 270 — Var. **Melastomatis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 223. — Peritheciis parum ramosis, apice obtusis: cetera ut in typo. 1800

Hab. in pag. sup. foliorum Melastomatis, Pululahua, Æquatoria.

4. **Capnodium graminum** Pat. Journ. de Bot. 1897, p. 348. — Mycelio crustaceo nigro, folia spicasque totas obtegente, ex hyphis brunneis velutinis, septatis, cylindraceis, dein moniliformibus, interdum in articulos 16 × 8 secedentibus compositio; peritheciis sparsis 1801

v. aggregatis, erectis, rigidis, simplicibus, brunneo-fuligineis, subopacis, 160-230 μ. altis, ex hyphis transverse septatis compositis, basi in partem cylindraceam, 60 × 20-25 metientem, inflatis, sursum in collum elongatum gracillimum 100-130 × 8-10 abrupte attenuatis, apice inflatione hyalina ovoidea 30 × 20-23 metiente præditis; spermatiis continuis, ovoideis, subhyalinis, 5 × 2; ascis sporidiisque nondum visis.

Hab. in inflorescentiis Cynodontis Dactyli, Tonkin.

5. **Capnodium stysanophorum** Penz. et Sacc. Malpighia XI, 1897, 1802
p. 390. — Thallo epiphyllo, late effuso, adpresso, tenui-membranaceo, olivaceo-nigricante e lamellulis flabellatis radiato-dendriticis, parallele-cellulosis formato; peritheciorum initiis filiformibus, Stysani speciem sistentibus; stipitibus compositis, basi incrassatis, e thallo oriundis, nigricantibus, sporophoris adscendentibus, simplicibus, pallidis, densis ubique tectis, sporophoris mox in catenas conidiorum abeuntibus; conidiis globulosis v. cuboideo-globulosis, diu cohærentibus, hyalinis, 3-5 × 3 vel 4,2-5 μ. diam. — Stysani stipites paullatim conidia amittunt et, sporophoris conglutinatis, in perithecia subulata, recta, simplicia v. ramulosa, nigricantia abeunt, ostiolis fimbriatulis pallidis; sporulæ nec sporidia visa.

Hab. in foliis vivis Panici fumosi, Java.

Fam. 2. Sphæriaceæ Fr.

Sect. 1. Allantosporæ

MASSALONGIELLA Speg. — Syll. I, p. 89, IX, p. 442.

1. **Massalongiella ligustica** Pollacci, Atti Ist. bot. Pavia, 2 ser. V, 1803
1896, p. 6 extr. tab. III, fig. 3, 7, 8, 13. — Peritheciis glabris, sparsis, 400-600 μ. diam., lenticularibus, simplicibus, tectis, ostiolo minuto, contextu membranaceo, atro; ascis octosporis, cylindraceo subfusiformibus, pedicellatis, aparaphysatis, 100-150 × 10-15; sporidiis allantoideis, hyalinis, utrinque biguttulatis, 22-25 × 9-10.

Hab. in ramulis corticatis Piri in Italia bor.

ENCHNOA Fr. — Syll. I, p. 89, IX, p. 442, XI, p. 271.

1. **Enchnoa chætomioides** Penz. et Sacc. Malpighia XI, 1897, p. 390: 1804
— Peritheciis dense et late gregariis, innatis, dein erumpenti-superficialibus, globulosis, obtusis, atris, membranaceis, 200-350 μ. diam., tomentoso-velutinis, pilis bis ter dichotomo-ramosis, septa-

tis, fuligineis, 4–5 μ. crassis, apice pallidioribus, ob peritheciorum proximitatem, stratum velutinum atro-fuscum formantibus; ostiolis initio rimulosis, tandem late circulariter apertis; ascis fusoideo-clavatis, apice obtusulis, breve acute stipitatis, 24-28 × 5 $^1/_2$-6 $^1/_2$, aparaphysatis, 8-sporis; sporidiis distichis, allantoideis, curvatis, utrinque rotundatis, 6-7 × 1 $^1/_2$-2, biguttatis, hyalinis.

Hab. in ramis putridis, Java. — A typo generis satis discrepans, ob pilos dichotome ramosos *Chætomium pannosum* in mentem revocat. Asci et sporidia fere *Eutypæ heteracanthæ*.

CALOSPHÆRIA Tul. — Syll. I, p. 95, IX, p. 447, XI, p. 272.

1. **Calosphæria acerina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 134. 1805
— Peritheciis subcuticularibus, circinatis, 4-12 associatis, depresso-globosis, griseo-villosis, intus atris nitentibusque, ostiolis convergentibus, in discum minutum epidermidem elevantem demumque disrumpentem unitis, leniter prominulis; ascis clavatis, p. sp. 35-40 × 6; paraphysibus 80-100 μ. longis; sporidiis distichis, allantoideis, uno apice attenuatis, leniter curvulis, hyalinis, 8-12 × 2-2 $^1/_2$.

Hab. in ramis emortuis Aceris, Canada Amer. bor. (Dearness).

2. **Calosphæria Cratægi** Mout. Compt. rend. Bull. Soc. Roy. Bot Belg. XXXVI, 1897, 2 part. p. 10, tab. A fig. 3. — Peritheciis globulosis, non collabascentibus, $^1/_3$ mm. diam., glabris, sæpius in acervulos minutos congestis vel subsparsis, in cortice interiore nidulantibus, collis breviusculis inclinato-convergentibus vel erectis, papillatis; ascis clavatis, apice subtruncatis, deorsum sensim attenuatis, 50-70 × 8; paraphysibus linearibus, septatis, 3 μ. crassis; sporidiis in asci superiore parte 2-3-seriatis, cylindricis, curvulis, hyalinis, plasmate regulariter 4-partito, 12-14 × 3.

Hab. ad ramulum Cratægi pr. Liège Belgii. — Affinis *C. ambiguæ* Berl., sed crusta stromatica nulla et ostiolo distincto diversa videtur.

3. **Calosphæria tetraspora** Schroet. Kryptog-Flora v. Schlesien. 1897, 1807
p. 453. — Peritheciis subepidermicis, 2–5 consociatis, nigris, poro minuto conico pertusis, dilute luteolo-pilosis; ascis clavatis, in stipitem brevem excurrentibus, 20–24 × 7,9, 4-sporis; sporidiis distichis, cylindraceis, curvulis, 12-14 × 2–2 $^1/_2$, hyalinis.

Hab. in ramis emortuis Sorbi Aucupariæ, socia *Valsa leucostoma* in Silesia.

4. **Calosphæria Kriegeriana** Niessl, Hedw. 1896, p. (143). — Peri- 1808

theciis irregulariter dense stipatis, mox circinantibus, mox inordinatis, in cortice interiore nidulantibus, rarius liberatis, soros oblongos, per peridermium vix elevatum, fissum erumpentes formantibus, minutis, ca. $^1/_3$ mm. diam., atris, glabris, coriaceis, subovoideis, in collum attenuatis, crassum breve, peritheciorum diametro vix æquans, cylindricum adscendenti-curvatum; ascis cuneiformi-clavatis apice obtusissimis, truncatis, octosporis, 50-70 × 9-12; sporidiis in ascorum superiore parte farctis, cylindricis, obtusis, curvulis, unicellularibus, subhyalinis, 9-12 × 2-3; pseudoparaphysibus longissimis, latis, septatis.

Hab. in ramis siccis Pruni spinosæ pr. Königstein Saxoniæ (Krieger).

5. **Calosphæria alpina** Sacc. Malpighia XI, 1897, pag. 295. — Peritheciis late et dense gregariis, ligno adnatis corticeque secedente nudatis, globulosis, aterrimis, plerumque solitariis, raro binis connatis. 200 μ. diam., ostiolis breve papillatis, mox secedentibus porumque orbicularem relinquentibus; ascis clavatis apice rotundatis, 30-32 × 5, octosporis; paraphysibus bacillaribus, asco longioribus, guttulatis; sporidiis distichis v. oblique monostichis, allantoideis, parce curvatis, 6 × 2, biguttulatis, hyalinis. 1809

Hab. in cortice Cytisi alpini, Riva-Valdobbia, Italia (Carestia). — *C. minimæ* affinis.

6. **Calosphæria microtheca** (C. et E.) Sacc. Syll. I, p. 97. — Var. **Rosmarini** Roll. Bull. Soc. Myc. de Fr. 1896, p. 2, tab. II, fig. 1. — Peritheciis nigris, sub cortice in stromate dense nidulantibus, $^1/_4$ mm. latis, longo aut brevi rostro filiformi instructis; ascis clavatis, minutissimis, in stipitem brevem desinentibus, 20 × 5, octosporis; sporidiis allantoideis, subdistichis, 5 × 1; paraphysibus tenuibus, filiformibus, longe superantibus. 1810

Hab. in ligno Rosmarini, Golfe Juan Galliæ.

7. **Calosphæria microtheca** (Cke. et Ell.) Sacc. Syll. I, p. 97. — F. **Salicis albæ** Fautr. Rev. Mycol. 1897, p. 53. — Peritheciis nigris, sub cortice gregariis, plus minus longe rostratis; ascis piriformibus, diffluentibus, breve stipitatis, 20 × 5; sporidiis hyalinis, allantoideis, 5 × 1. 1811

Hab. in ramis Salicis albæ in Gallia.

CORONOPHORA Fuck. — Syll. I, p. 103.

1. **Coronophora gregaria** (Lib.) Fckl.-Sacc. Syll. I, p. 103. — Var. **Tiliæ** Vogl. Bull. Soc. bot. Ital. 1896, p. 40. — Peritheciis den- 1812

sissime sociatis, magnis, subglobosis, aterrimis, verruculosis, apice late perforatis; ascis clavatis, in pedicellum longum attenuatis, lumine plus minus tenui 70-80 × 16; pseudoparaphysibus filiformibus, septatis, ascis duplo longioribus; sporidiis numerosissimis, cylindraceis, curvulis, pallide luteis, 7-8 × 2.

Hab. in ramis corticatis Tiliæ, Canton Ticino in Helvetia ital.

2. **Coronophora obvallata** (Otth) Sacc. et Syd. *Calosphœria obvallata* Otth ap. Jacz. Bull. Boiss. 1896, p. 79. — Peritheciis minutis, subglobosis, piriformibus, orbiculatim dispositis, cortice inflato tectis; ostiolis in rostrum elongatis, in discum emergentibus; ascis ellipsoideis, pedicellatis, p. sp. 45 × 10; paraphysibus vix conspicuis; sporidiis numerosis, agglomeratis, cylindraceo-obtusis, arcuatis, hyalinis, 5-6 × 1-2. 1813

Hab. in ramis Platani pr. Bern Helvetiæ (Otth).

3. **Coronophora occulta** (Otth) Sacc. et Syd. *Calosphœria occulta* Otth Bern. Mittheil. 1870, p. 96. — Peritheciis subsolitariis inter corticis strata infima latentibus v. leviter immersis sed subliberis, difformibus valde depressis, atris, 1-2 mm. lat., subtiliter tuberculosis; ostiolo obsolete papillato deorsum h. e. lignum spectante; nucleo cinereo; ascis oblongis v. obovatis, sub apice late obtuso sæpius leniter angustatis, in pedicellum longum filiformem productis, myriosporis; sporidiis perexiguis, cylindraceis, curvis. 1814

Hab. in truncis Abietis excelsæ in Helvetia.

VALSA Fr. — Syll. I, p. 108, IX, p. 449, XI, p. 273.

1. **Valsa Amorphæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 133. — Peritheciis circinatis, 6-10-consociatis, cortice interiore immersis, ovato-globosis, 300-350 . diam., dense celluloso-tunicatis, inferne sæpe collabentibus, in colla firma cylindrica convergentia contractis; ostiolis obtuse conicis, levibus, atris, epidermidem perforantibus, initio interdum in discum atrum conjunctis; ascis clavato-cylindraceis, 75-80 × 10-12, obscure paraphysatis, 8-sporis, stipitatis; sporidiis subdistichis, allantoideis, sæpe initio ellipticis, hyalinis, 10-18 × $3^1/_2$-$4^1/_2$. 1815

Hab. in ramis emortuis Amorphæ fruticosæ, Kansas Amer. bor. (Bartholomew).

2. **Valsa opulina** Sacc.-Syll. IX, p. 451. — Forma Lantanæ Bres. Malpighia XI, 1897, p. 295. — Ascis octosporis, 45-60 × 7-12; sporidiis 15-16 × 3. 1816

Hab. in ramis siccis Viburni Lantanæ in Italia bor.

3. **Valsa macrocarpa** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 280. — Peritheciis ovato-globosis, circiter $^1/_2$ mm. diam., 15-30 in stromate corticali associatis, e mutua pressione subangulosis; ostiolis erumpentibus, nigris, apice rotundatis, demum applanatis ac umbilicatis; disco dilute brunneo; ascis clavato-cylindraceis, p. sp. 23-30 × 5-6; sporidiis distichis, allantoideis, valde curvatis, hyalinis, 6-7 × $1^1/_4$-$1^1/_2$. 1817

Hab. in ramis emortuis Quercus macrocarpæ, Kansas Amer. bor. (Bartholomew).

4. **Valsa Celtidis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 133. — Stromatibus corticalibus, junioribus multicellularibus et orbicularibus; peritheciis circinatis, matrice immutata corticis interioris immersis, ovatis, dense celluloso-et membranaceo-tunicatis, circiter $^1/_2$ mm. diam., in collum convergens contractis; ostiolis in discum nigrum erumpentem unitis; ascis oblongo-lanceolatis, 40-50 × 13-15; sporidiis distichis, oblongis v. oblongo-ellipticis, lenissime curvulis, 14-18 × 5-6, utrinque rotundatis v. obtusis; spermatiis allantoideis, hyalinis, 5-6 × $1^1/_4$, in cirros subnigros crassos ceraceos protrusis. 1818

Hab. in ramis emortuis Celtidis occidentalis, Kansas Amer. bor. (Bartholomew).

5. **Valsa brevis** Peck, Bull. Torr. Bot. Club. 1895, p. 210. — Stromatibus numerosis, prominentibus; peritheciis 10-20 v. pluribus in quoque stromate, in cortice interiore nidulantibus; ostiolis nigris, emergentibus, discum orbicularem v. ellipticum, erumpentem, subpulverulentum aspergentibus v. obliterantibus; ascis 21-26 μ. longis; sporidiis allantoideis, $6^1/_4$-$7^3/_4$ μ. longis. 1819

Hab. in cortice Abietis balsameæ, Labrador (Waghorne).

6. **Valsa acericola** Otth, Bern. Mitth. 1870 p. 98. — Pustulis gregariis pulvinatis ambitu leniter colliculosis; peritheciis stromate corticali immersis, circinantibus et subdecumbentibus; collis convergentibus, ostiolis incrassatis prominentibus arcte congestis et discum totaliter obliterantibus; ascis elongato-ellipsoideis aut subfusiformibus, octosporis; sporidiis distichis elongato-ellipsoideis, curvulis, obtusis, 16-26 × 3-4, flavidis. 1820

Hab. in ramis Aceris Pseudoplatani pr. Bernam in Helvetia, socia *Cytospora*.

Valsa Melanodiscus Otth, Bern. Mittheil. 1870, p. 97. — Pustulis corticolis pulvinatis, ambitu aliquantulum colliculosis; stromate minuto fulvo e matrice formato; peritheciis congregatis, membranaceis, globoso-subdepressis, collis convergentibus, ostiolis in disco 1821

exserto placentiformi-dilatato, nigro-fusco sparsis; ascis fusoideo-clavatis, 8-sporis; sporidiis cylindraceo-curvulis, 8-11 × 1,5, hyalinis.

Hab. in ramis Alni incanæ in Helvetia.

8. **Valsa Platanoidis** Otth, Bern. Mittheil. 1868, p. 97. — Gregaria, leniter pustulata; peritheciis corticis strato supremo immersis, inordinatis, sæpe paucis, immo solitariis; collis exilibus, convergentibus, ostiolis incrassatis in disco cinereo prominulis v. sæpius eum prorsus obliterantibus; ascis fusoideis, basi breviter rostratis; sporidiis octonis, cylindraceis, obtusissimis, curvulis rectisve, 16–22 × 4–6, hyalinis. 1822

Hab. in ramis Aceris platanoidis pr. Bernam Helvetiæ, socia *Cytospora*.

9. **Valsa socialis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 132. — Stromatibus circinatis v. gregariis, corticalibus, linea nulla circumscriptis, minutis, 1–2 mm. epidermidem in pustulas minutas orbiculariter dispositas elevantibus; peritheciis cortice immutato immersis, 1–6 in quoque stromate, $^1/_2$ mm. diam., in colla tenuia abrupte contractis; ostiolis minutis nigris, initio disco pallide albo tectis, demum erumpentibus sed non exsertis; ascis subcylindraceis, p. sp. circiter 60 × 6; sporidiis subdistichis, allantoideis, obtusis, modice curvulis, hyalinis, 12–16 × $2\,^1/_2$–3. 1823

Hab. in ramis corticatis Salicis cordatæ, Kansas Amer. bor. (Bartholomew).

10. **Valsa leucopsis** Ell. et Ev. Proc. Acad. Philad. 1895, p. 425. — Stromatibus depresso-conicis, $^3/_4$-1 mm. diam., orbicularibus, apice erumpentibus et niveis; peritheciis 6–12 in quoque stromate, circinatis, circiter 150 μ. diam., sursum in colla gracilia abrupte contractis, disco niveo; ostiolis punctiformibus, erumpentibus, nigris; ascis clavato-cylindraceis, 22-27 × 5-6; sporidiis sursum in asco distichis, allantoideis, hyalinis, leniter curvulis, 5-$6\,^1/_2$ × 1-$1\,^1/_2$. 1824

Hab. in cortice Fraxini viridis (?), Nebraska, Amer. bor.

11. **Valsa albopuncta** Ell. et Ev. Field Columb. Mus. IX, 1896, p. 133. — Stromatibus minutis, $^1/_2$-$7\,^1/_2$ mm. diam., subseriatim dispositis, epidermide inclusis nec in corticem interiorem penetrantibus, omnino albis, nulla linea distincta circumscriptis; peritheciis 3–6 in quoque stromate, pallide ardesiacis, 110–130 μ. diam., in collum tenue attenuatis; ostiolis minutis, subglobosis, ardesiacis, tandem circum marginem disci minuti nivei pulverulenti erumpentibus; ascis clavato-cylindraceis, 50 × 6, breviter stipitatis, apice 1825

obtusis, paraphysatis?; sporidiis distichis, allantoideis, hyalinis, modice curvulis, 6-9 × 1 $^1/_2$-2.

Hab. in ramis emortuis Liriodendri Tulipiferi in W. Virginia Amer. bor. (NUTTALL).

EUTYPELLA (Nits.) Sacc. — Syll. I, p. 145, IX, p. 460, XI, p. 274.

1826 1. **Eutypella Sarcobati** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 462. — Stromatibus corticalibus, orbicularibus, 1 $^1/_2$ mm. diam., linea nigra angusta cinctis, superficiem ligni nigrificantibus; perithecciis 3-8, ligno immersis, globosis, $^1/_2$ mm. diam., coriaceo-tunicatis, intus nigris et nitentibus, supra in colla tenuia abrupte contractis; ostiolis erumpentibus, connatis, conicis, 4-sulcatis; ascis (p. sp.) clavato-cylindraceis, 25-30 × 4-5; sporidiis subdistichis, allantoideis, curvulis, hyalinis, 4-5 × 1-1 $^1/_4$.

Hab. in caulibus emortuis Sarcobati vermiculati, Colorado Amer. bor.

1827 2. **Eutypella herbicola** Ell. et Ev. Proc. Acad. Philad. 1895, p. 426. — Stromatibus elongatis, 5-6 cm. longis, 2-3 mm. latis, extus schistaceis, linea nigra caulem penetrante circumscriptis; perithecciis globosis, 300-450 μ. diam., non profunde innatis, solitariis v. 3-10 valsoideo-consociatis; ostiolis erumpentibus, tuberculoso-globosis v. breve cylindraceis, apice incrassatis, quadrisulcatis, ascis p. sp. fusoideo-clavatis, 30-35 × 5-6, stipite gracili; paraphysibus obscuris v. nullis; sporidiis allantoideis, luteolis, leniter incurvis, obtusis, 6-8 × 1 $^3/_4$-2.

Hab. in caulibus emortuis Asteris cordifolii, Ohio Amer. bor. (MORGAN).

1828 3. **Eutypella Rosæ** Otth, Bern. Mittheil. 1870, p. 97 *(Valsa)*. — Laxe gregaria; perithecciis in orbem congestis, stromate parco albido obsolete nigrolimitato ad lignum demersis, subglobosis; collis tenuibus fasciculatis, sursum incrassatis, ostiolis nigris nitidulis in discum erumpentem leniter prominulis stipatis; ascis pusillis, clavatis, octosporis; sporidiis exiguis, 10 × 2, hyalinis.

Hab. in ramis emortuis Rosæ caninæ in Helvetia.

1829 4. **Eutypella Mahoniæ** P. Brun. Act. Soc. Linn. Bordeaux, 1890, p. 55 extr. — Stromate valsoideo, cortice immerso, conico; perithecciis 6-8 consociatis, globosis, in collum breve elongatis, ostiolo brevi v. plus minusve elongato donatis, crassis, sulcatis; ascis cylindraceo-clavatis, 55-60 × 5-6; sporidiis distichis, cylindraceis, curvatis, 12-14 × 2 $^1/_2$-3, subhyalinis.

Hab. in ramis emortuis Mahoniæ Aquifolii in Gallia (Flageolet).

5. **Eutypella Tiliæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 280. — Stromate corticali, nulla linea circumscripto; peritheciis circinatis, ovato-globosis, $^1/_2$ mm. diam., cortice interiore immersis, collis convergentibus ac in fasciculum erumpentem ex ostiolis ovato-conicis quadrisulcatis compositum terminatis; ascis clavato-cylindraceis, cum stipite gracili 40 μ. longis, p. sp. 22–35 × 3, paraphysatis, octosporis; sporidiis in asco superne distichis, allantoideis, hyalinis, 4-4 $^1/_2$ × 1. 1830

Hab. in cortice emortuo Tiliæ americanæ, Canada Amer. bor. (Macoun).

6. **Eutypella Populi** Ell. et Ev. Americ. Natur. 1897, p. 342. — Stromatibus orbicularibus, convexis, 1-2 mm. diam., ligno insidentibus, epidermidem in pustulas elevantibus, sed non circumscriptis; peritheciis 12-30 in uno stromate, confertis, ovato-globosis, circiter $^1/_4$ mm. diam.; ostiolis breve cylindraceo-conicis, fasciculatim erumpentibus, distincte quadrisulcatis; ascis ca. 20 × 4; sporidiis subdistichis, allantoideis, leniter curvulis, brunneolis, 4–5 × 1–1 $^1/_4$. 1831

Hab. in ramis emortuis Populi in Canada (Macoun).

7. **Eutypella Fici** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 133. — Peritheciis 4-6 subcircinatim associatis, depresso-globosis, $^1/_4$–$^1/_3$ mm. diam., cortice interiori immutato immersis, in ligno non penetrantibus nec linea nigra circumscriptis, superficiem corticis æqualiter nigrificantibus; ostiolis breve cylindraceis, apicibus subacutis 4-sulcatis, epidermidem fasciculatim perforantibus; ascis clavatis, p. sp. 15–20 × 3 $^1/_2$-4; sporidiis subdistichis, flavis, allantoideis, curvulis, 3–3 $^1/_2$ × 1. 1832

Hab. in ramis emortuis Fici, Louisiana Amer. bor. (Langlois). — An varietas *Eutypellæ capillatæ?*

8. **Eutypella alpina** Ell. et Ev. Proc. Acad. Philad. 1895, p. 425. — Stromatibus ligno immersis, depresso-conicis, orbicularibus v. ellipticis, 3-4 mm. diam., intus albis, extus subcarbonaceis, nigris, linea nigra lignum penetrante circumscriptis; peritheciis 20-30 in quoque stromate, monostichis, confertis, ovato-globosis, $^1/_3$ mm. diam., in colla gracilia contractis; ostiolis fasciculatis, firmis, subglobosis, quadrisulcatis, erumpentibus; ascis p. sp. 22-24 × 4-5, longe stipitatis; paraphysibus firmis, guttatis, ascos superantibus; sporidiis subdistichis, allantoideis, luteolis, modice curvatis, 7–10 × 1 $^1/_2$-2. 1833

Hab. in truncis emortuis Alni incanæ, Colorado, Amer. bor. (Baker).

EUTYPA Tul. — Syll. I, p. 162, IX, p. 466, XI, p. 275.

Eutypa bambusina Penz. et Sacc. Malpighia XI, 1897, p. 501. — 1834
Stromate corticali longe protracto, leviter matricem infuscante; acervulis longitudinaliter dispositis, erumpentibus, elongatis, peridermio arcte fisso, atrato cinctis, 1–2,5 mm. long., vix 0,7 mm. cr.; peritheciis in quoque acervulo numerosis, minutis, intus et extus nigris, 100–150 μ. diam., ostiolis vix exstantibus, rotundatis, levibus (non sulcatis); ascis jam resorptis; sporidiis allantoideis, subhyalinis, 2-guttatis.

Hab. in culmis emortuis Bambusæ, in Horto bot. Bogoriensi ins. Java. — Ab affini *E. arundinacea* Sacc., F. ital., t. 158, ostiolis integris, sporidiis conspicue minoribus differt.

2. **Eutypa lata** (Pers.) Tul.-Sacc. Syll. I, p. 170. — Var. **Macrochloæ** 1835
Pat. Cat. rais. pl. cell. Tunisie 1897, p. 101. — Stromatibus epidermidem nigreficantibus; peritheciis minutis ovoideis, e pressione mutua angularibus; ostiolis cylindraceis, brevibus, erectis, epidermidem perforantibus et nervos æquantibus; ascis longe stipitatis; sporidiis distichis, cylindraceis, curvatis, luteolo-fuligineis, 8-10 × 2

Hab. in culmis emortuis Macrochloæ tenacissimæ in Tunisia.

3. **Eutypa æmula** Penz. et Sacc. Malpighia XI, 1897, p. 500. — 1836
Stromate corticali late effuso, vix conspicuo; acervulis pulvinatis, erumpentibus, suborbicularibus v. ovatis, sæpe confluentibus, depressis, nigris, 0,5-1 mm. lat., ob ostiola vix, rarius breviter emergentia rugulosis, ostiolis obsolete rimulosis; peritheciis globosis, in quoque acervulo 8-12, matrice stromatica alba vestitis, 0,4-0,3 mm. diam.; ascis cylindraceo-clavatis octosporis, 28-30 × 5-6, p. sporif.; stipite 15-20 μ. long.; sporidiis subdistichis, allantoideis, 6-7 × 2, dilutissime melleis.

Hab. in ramis emortuis arboris cujusdam, Tjibodas ins. Java. — Formæ eutypelloideæ *Eutypæ ludibundæ* Sacc. omnino æmula, sed ostiola subintegra et sporidia conspicue minora. Interdum in ligno adest linea stromatica nigra plures acervulos amplectens, nec singulos acervulos, ut in *Eutypella*.

CRYPTOSPHÆRIA Grev. — Syll. I, p. 182, IX, p. 470.

1. **Cryptosphæria sárosiensis** Hazsl. Math. es term. Közlem. XXV, 1837

2, Budapest 1892, p. 213, t. XIV, fig. 57. — Peritheciis gregariis sed inordinate dispositis, globosis, solummodo ostiolis epidermidem perforantibus; ascis clavatis intermixtis paraphysibus filiformibus; sporidiis distichis, 10-12 μ. longis.

Hab. in ramis tenuissimis Corni sanguineæ et C. albæ in Hungaria. — Perithecia in parte suprema ramorum non habent ascos, sed acrosporas, ab ascosporis nec forma nec magnitudine diversas.

2. **Cryptosphæria juglandina** Ell. et Holw. Bull. Lab. Nat. Hist. Jowa, 1895, p. 41. — 1838
Stromatibus effusis, continuis v. interruptis, 2-4 cm. longis, corticolis, epidermidem pallidiorem elevantibus; peritheciis numerosis, ovato-globosis, $^1/_2$-$^3/_4$ mm. diam., confertis; ostiolis obtusis, erumpentibus, plerumque 4-6 consociatis, epidermidem perforantibus; ascis clavatis, longe stipitatis, 110 μ. longis p. sp. 60 × 10, octosporis, obscure paraphysatis; sporidiis irregulariter confertis, allantoideis, luteo-brunneis, continuis, modice curvulis, obtusis, 15-20 × $3^1/_2$-$4^1/_2$.

Hab. in ramis emortuis Juglandis cinereæ, Jowa, Amer. bor. (Holway).

CRYPTOVALSA Ces. et De Not. — Syll. I, p. 187, IX, p. 471, XI, p. 276,

1. **Cryptovalsa Coryli** Vogl. Bull. Soc. bot. Ital. 1896, p. 40. — 1839
Stromate longe lateque effuso, ligni superficiem infuscante; peritheciis monostichis, stipatis, immersis, sphæricis, cortice rimoso tectis, collo cylindrico, ostiolo crassiusculo, cylindraceo, vertice rotundato, late pertuso; ascis clavatis, apice rotundatis, longissime stipitatis, polysporis, 50-60 × 15, stipite 40 μ. longo; sporidiis conglobatis, minutissimis, eguttulatis, curvulis, luteis, 6-8 × 2.

Hab. in ramis corticatis Coryli Avellanæ, Canton Ticino in Helvetia italica.

DIATRYPE Fr. — Syll. I, p. 191, IX, p. 472, XI, p. 276.

1. **Diatrype linearis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 134. — 1840
Stromatibus angustis, 2-6 mm. longis, 1 mm. latis, superficie ligni immersis, erumpentibus sed tantum leniter prominulis, apice subapplanatis, ubique fibris ligni limitatis, utrinque acutis; peritheciis 6-15 in quoque stromate immersis, globosis, crasse coriaceo-tunicatis, 400-500 μ. diam., intus albidis, supra ostiolis papilliformibus vel subconicis vix prominulis asperatis; ascis p. sp. 60 × 7, in stipitem

filiformem attenuatis, paraphysatis, 8-sporis, cum stipite 120 μ. longis; sporidiis sursum in asco subdistichis, allantoideis, brunneolis, leniter curvulis, 7-10 × 2-2 1/2.

Hab. in ligno Eucalypti Globuli in California. — Aspectu extérno stromata *Glonium lineare* optime simulant.

2. **Diatrype Saccardoi** Syd. in litt. *Diatrype parvula* Penz. et Sacc. 1841
Malpighia XI, 1897, p. 501, nec Berl. — Stromatibus gregariis, erumpentibus, cortice cinctis, parvulis (1-1,5 mm. diam., 0,5 mm. alt.), extus atris, intus candidis; peritheciis monostichis, 10-15 in quoque stromate, erectis, oblongis, 0,1-0,2 mm. latis, ostiolis vix prominentibus, punctiformibus vel verruciformibus, pariete perithecii extus candido, intus nigrescente; ascis clavatis, stipitatis, octosporis, part. sporif. 20-22 × 5-6; sporidiis allantoideis, hyalino-flavidis, utrinque obtusis, curvulis, 6-8 × 2, biguttulatis.

Hab. in ramulis Podocarpi (?), Tjibodas, ins. Java. — Affinis *D. laurinæ* Rehm, sed videtur differre sporidiis paullo angustioribus, flavidis, ascis quoque angustioribus, matrice etc.

3. **Diatrype trifida** Ell. et Macbr. Bull. Labor. Nat. Hist. Univ. 1842
Jowa IV. 1896. p. 71. — Stromatibus placoideis, 2 1/2-3 cm., duris, carbonaceis, e ligni superficie parum prominentibus; peritheciis oblongo-ovatis, 1-1 1/2 mm. diam.; ostiolis emergentibus, brevibus, conico-cylindraceis; ascis 15-20 × 3-3 1/2, stipite filiformi donatis; sporidiis partim distichis, allantoideis, hyalinis, 3 × 1.

Hab. in ligno vetusto pr. Tehuantepec, Mexico (Smith).

4. **Diatrype** *(Pachytrype)* **princeps** Penz. et Sacc. Malpighia XI, 1897, 1843
p. 501. — Stromatibus erumpentibus, majusculis, pulvinatis, 8-9 mm. lat., intus duris, compactis, atro-virentibus; peritheciis globulosis, minutis, vix 1/2 mm. d., tenui-membranaceis, poly-(4-5)-stichis, ostiolis filiformibus, dense fasciculatis, lævibus, nigris, 0,7 mm. long., ascis jam fere elapsis; sporidiis distichis allantoideis, leniter curvis, 5-6 × 1, perfecte hyalinis.

Hab. ad ramos emortuos in Pangerango, ins. Java. — Ob stroma compactum et toto habitu a *Diatrype* recedit et forte genus novum *(Pachytrype)* sistit; sed exemplaria non omnino perfecta.

DIATRYPELLA Ces. et De Not. — Syll. I, p. 200, IX, p. 477, XI, p. 277.

1. **Diatrypella Fraxini** Ell. et Ev. Proc. Acad. Philad. 1895, p. 426. 1844
— Stromatibus corticalibus, convexis, 2-3 mm. diam., linea nulla circumscriptis; peritheciis 8-12 in quoque stromate, globosis, 250-

300 . diam.; ostiolis in discum brunneo-nigrum erumpentem conjunctis, subprominentibus, dein 4-fissis; ascis clavatis, 110 × 12, longe stipitatis, polysporis, paraphysatis; sporidiis confertis, allantoideis, luteo-hyalinis, curvulis, 6-8 × 1 $^3/_4$-2.

Hab. in ramis emortuis Fraxini viridis, Kansas, Amer. bor. (Bartholomew).

2. **Diatrypella obscurata** (Schw.) Ellis Proc. Acad. Philad. 1895, p. 27, *Sphæria obscurata* Schw. in herb. — Stromate subcuticulari, 2-6 mm. diam., nigro, extus aspero, intus albido, in lignum penetrante, superficiem nigrificante, linea nigra circumscripto; peritheciis magnis, $^3/_4$ mm., solitariis v. 2-6 consociatis; ascis clavatis, 75-80 × 12-15, p. sp. circiter 50 . polysporis; sporidiis irregulariter confertis, in cumulo luteis, solitariis hyalinis, allantoideis, modice curvulis, utrinque nucleo magno præditis, 5-6 × 1 $^1/_4$. 1845

Hab. in ramis arboris cujusdam, Bethlehem, Pa. Amer. bor.

Sect. 2. Phæosporæ.

CERATOSTOMA (Fr.) Sacc. — Syll. I, p. 215, IX, p. 481, XI, p. 278.

1. **Ceratostoma robustum** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 10, tab. A. fig. 1. — Peritheciis superficialibus, globosis, basi hyphis repentibus fuscis obductis, ceterum glabris, atris, opacis, $^1/_4$ mm. diam., collo rigido, crasso, 400-500 × 120, subæquali, apice retuso; ascis paraphysatis, teretibus, 80 × 8, octosporis; sporidiis monostichis, fuscis, reniformibus, plerumque biguttatis, 12-15 × 5-7, aliquando (extra ascos) subtiliter medio septatis. 1846

Hab. in ligno fagineo adhuc duro pr. Liège Belgii.

2. **Ceratostoma albo-maculans** Ell. et Ev. Proc. Acad. Philad. 1895, p. 418. — Peritheciis totis innatis, magnis, 1 mm. diam., membranaceo-coriaceis, 1-3-consociatis; ostiolis erumpentibus, maculas albo-luteolas subellipticas 1-2 mm. diam. formantibus, ovato-conicis, nigris, levibus; ascis cylindraceis, p. sp. 75-80 × 7, paraphysatis; sporidiis monostichis, inæquilateraliter ellipticis, obtusis, 1-2-guttulatis, olivaceis, 11-14 × 5-6. 1847

Hab. in ligno putri, Ohio, Amer. bor. (Morgan). — *C. Avocettæ* maculis albis proximum, sed differt peritheciis dimidio majoribus et etiam sporidiis majoribus.

3. **Ceratostoma melaspermum** Ell. et Ev. Proc. Acad. Philad. 1895, 1848

p. 417. — Peritheciis gregariis, innatis, depresso-globosis, membranaceis, $^1/_2$–$^3/_4$ mm. diam., rostro atro erumpenti circiter 1 mm. longo donatis, obtusis, apice in discum minutum horizontalem circularem expansis, basi late tomentoso-pilosis e pilis dilute luteis; ascis cylindraceis, breve stipitatis, 65-75 × 6-7, paraphysibus gracilibus; sporidiis monostichis, navicularibus, biguttulatis, 12-15 × 5-6. hyalinis, dein opacis et subatris.

Hab. in ligno putrido, Ohio Amer. bor. (Morgan)

4. **Ceratostoma biparasiticum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 1849
p. 127. — Peritheciis ovatis, 80-100 μ. diam. evolutis in subiculo mucedineo albo ex hyphis laxe intricatis hyalinis circiter 3 μ. crassis, partem inferiorem stipitis *Isariæ* formantibus conidiaque subglobosa hyalina 2 × $1\,^1/_2$ μ. metientia gerentibus composito; rostro peritheciorum griseolo-brunneo, fibroso, ca. 1 mm. longo, 35-40 μ. crasso; ascis clavato-lanceolatis, p. sp. 20 × 6, breve stipitatis, octosporis, paraphysatis (?); sporidiis fasciculatis, oblongo-cylindraceis, olivaceis, 6-12 × $1\,^1/_2$.

Hab. parasiticum in stipite Isariæ farinosæ, Ohio Amer. bor. (Lloyd).

CHÆTOMIUM Kunze — Syll. I, p. 220, IX, p. 484, XI, p. 279.

1. **Chætomium varium** Delacr. Bull. Soc. Mycol. de France, XIII, 1850
1897, p. 124, tab. X, fig. F. — Peritheciis variis, interdum subrotundis, aliis elongatis v. basi truncatis, atris, astomis, densiuscule aggregatis, circiter 200 × 150 μ., mycelio brunneo, septato, ramoso, usque 6 μ. lato; setis brunneolis, apice obtusatis, plerumque continuis, 250-300 μ., simplicibus; ascis aparaphysatis, breviuscule clavatis, cito dilabentibus, 45 × 11; sporidiis ovoideis, utrinque obtuse attenuatis, episporio crassiore, uni-vel sæpius biguttulatis, in asco hyalinis, sed liberis maturisque dilute brunneis, 9 × 6.

Hab. in culmo graminis cujusdam in regione fluminis Guanaparo Venezuelæ (Geay). — *Ch. lanoso* Peck et *Ch. comato* (Tode) Fr. affine.

2. **Chætomium Bartholomæi** Sacc. et Syd. *Chætomium setosum* Ell. 1851
et Ev. Americ. Natur. 1897, p. 340, nec Wint. — Peritheciis primo ovatis v. ovato-conicis v. etiam cylindraceo-conicis, dein obovatis, superne applanatis, basi contractis ideoque pseudostipitatis, 400-500 μ. altis, pilis erectis levibus atris, 150-200 μ. longis et basi 5-6 μ. crassis, apice acutis non ramosis vestitis; mycelio ex hyphis reticulatis asperis, circa basim pilis brunneis anbundulatis brevibus

obsito; ascis subellipticis, 10-12 × 6-7; sporidiis ellipticis, brunneis. 4-5 × 3-4 et 2-2 $^1/_2$ μ. crassis.

Hab. in fœno putrido in Kansas, Amer. bor. (Bartholomew). — Pilis simplicibus glabris peritheciorum a *Ch. melioloide* diversum.

3. **Chætomium contortum** Peck, 49 Rep. Stat. Bot., N. York. 1896, p. 24. — Peritheciis subglobosis, circiter 1 mm. latis, fragilibus, nigris, subiculo ex hyphis gracilibus coloratis septatis composito ac setis levibus nigris, 5-6-ies spiraliter irregulariterque contortis 13-15 μ. crassis tecto; ascis fugacibus; sporidiis limoniformibus, uninucleatis, subhyalinis, 13 × 8-10 $^1/_2$. 1852

Hab. in bulbis Lilii longiflori, New York Amer. bor. — E vicinia *Chætomii streptotrichis, Ch. spiralis, Ch. crispati* etc., sed cum nullo horum apte conjungendum

4. **Chætomium Montemartini** Cav. Fung. Longob. V, n. 228. — Peritheciis superficialibus, sparsis, globoso-conicis, ostiolatis, in bysso fugaci insidentibus, brevissime pilosis, dein scabriusculis, castaneo-brunneis; ascis piriformibus mox diffluentibus, aparaphysatis, 20-22 × 10-12; sporidiis ellipticis, inæquilateralibus, utrinque obtusis, castaneis, 8-9 × 4 $^1/_2$-5, primitus in glomerulum coacervatis. 1853

Hab. ad seminum tegmina, in capsa germinatoria servata, Opuntiæ vulgaris in Italia bor.

5. **Chætomium Zopfii** Em. Boul. Rev. gén. Bot. 1897, p. 25, t. 1-III. — Peritheciis superficialibus, minutis, subglobosis, membranaceis, nigris in collum breve productis, ostiolo obtuso pilis rigidis, nigris in cymam biparam divisis cymisque uniparis terminatis, extremitatibus clavatis hyalinis; ascis breve pedicellatis, cylindricis, 48 × 8; sporidiis octonis, monostichis, e fronte suborbicularibus 7,5 μ. diam., e latere lenticularibus, 4,5 μ. cr. 1854

Hab. in cortice udo Piscidiæ erythrinæ in Galliam importato; inde in variis substantiis cultum. — Status conidiophori sunt *Dicyma ampullifera* Boul. sp. n. l. c. conidiis globoso-ovoideis brunneis echinulatis, 7,5 × 4,5 et *Sporotrichi* sp. (conidiis globoso-ovoideis, hyalinis, levibus, 6 × 4). «Tota species fere perfecte congruit cum *Ascotricha chartarum* Berk., Syll. I, p. 37, seu *Chætomio chartarum* (Berk.) Wint. Deutschl. Pilze II, p. 157 cum iconibus».

6. **Chætomium Ellisianum** Sacc. et Syd. Sic nominandum est *Chætomium pusillum* Ell. et Ev. in Syll. IX, p. 484, quum exstet anterius *Ch. pusillum* Fr. in Syll. I, p. 222. 1855

SORDARIA Ces. et De Not. — Syll. I, p. 230; IX, p. 487.

1. **Sordaria elephantina** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 97. — Peritheciis dense gregariis, obpiriformibus v. ovatis, plus minus setulosis, atris, 600-800 μ.; ascis subclavatis, substipitatis; sporidiis subdistichis v. oblique monostichis, oblongis v. ellipsoideis, rufo-fuscis v. atris, 19-23 × 10-12, basi hyalino-appendiculatis. 1856

   Hab. in fimo elephantino, Kamerun (Jungner).

2. **Sordaria amphisphærioides** Ell. et Ev. Americ. Natur. 1897, p. 340. — Peritheciis sparsis v. 2-3 consociatis, plerumque circiter $^3/_4$ mm. diam., membranaceis, globosis v. leniter depresso-globosis, matrice intus haud immutata immersis, collo brevissimo; ostiolo depresso-globoso, subdiscoideo, centro perforato et erumpente (ut in genere *Clypeosphæria)*; ascis cylindraceis, 220-230 × 20, brevissime stipitatis; sporidiis monostichis, ellipticis v. oblongo-ellipticis, luteolis, dein opacis, 27-30 × 19-21, non appendiculatis; paraphysibus cylindraceis, continuis, ascos superantibus, circiter 4 μ. crassis. 1857

   Hab. in fimo vaccino in Kansas Amer. bor. (Bartholomew).

3. **Sordaria arachnoidea** (Niessl) Sacc. et Syd. *Podospora arachnoidea* Niessl, Hedw. 1896, p. (143). — Peritheciis sparsis v. gregariis, semiimmersis, ovoideis in collum conicum crassum attenuatis, 0,6-0,8 mm. diam., villo arachnoideo albido tectis, postremo subnudis atris rugulosis; ascis elongate cylindraceis, pedicellatis, varia longitudine, 150-200 × 15-18, octosporis, paraphysibus tubulis articulatis; sporidiis laxe distichis, rhomboideo-lanceolatis, utrinque obtuse retusis, fusco-nigris, 16-18 × 8-10, basi appendicula hyalina, subcylindrica, plerumque curvata, duplo longiore quam sporidia, apice appendicula subfiliformi, varia longitudine mox evanescente. 1858

   Hab. ad fimum in calidariis in Saxonia (Krieger).

4. **Sordaria ostiolata** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 458. — Peritheciis sparsis, immersis, dein semiemergentibus, glabris, ovatis, brunneis, 200-250 μ. diam., ostiolio nigro, conico v. breve cylindraceo, erumpente; ascis cylindraceis, breve stipitatis, paraphysatis, 80-190 × 12, 8-sporis; sporidiis monostichis, ellipticis, 12-15 × 8-10. 1859

   Hab. in fimo cuniculorum, Kansas Amer. bor. (Bartholomew).

5. **Sordaria violacea** Ell. et Ev. Americ. Natur. 1897, p. 340. — Peritheciis semiemergentibus, 2-4 confluentibus, 700-800 μ. diam., depresso-globosis, plus minusve asperulis, contextu grosse parenchymatico-celluloso, violaceo; ostiolo hemisphærico-papilliformi v. 1860

subdiscoideo-depresso; ascis clavato-oblongis, utrinque rotundatis, sessilibus, octosporis; paraphysibus numerosis, indistinctis; sporidiis oblongo-ellipticis, dein opacis, 30-45 × 19-21.

Hab. in fimo equino, Kansas Amer. bor. (Bartholomew).

6. **Sordaria ustorum** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 11, tab. A. f. 3. — Peritheciis ovoideis, plane v. semi-immersis, hyphis fuscidulis mycelii, 3 μ. crassis, partim obsitis, 300-400 μ. latis, ostiolo papillato, coriaceis, fusco-atris; ascis cylindraceis, stipitatis, 8-sporis, apice retusis, 160 (p. sp. 120) × 12-14; sporidiis monostichis, ellipsoideis, basi truncatis, ibique hyalinis, 3 μ. long. appendiculatis, primo pallide fuligineis simulateque punctulatis, demum atro-opacis, sine app. 17 × 10-12. 1861

Hab. in terra carbonacea pr. Liège Belgii.

7. **Sordaria clavata** Pat. Bull. Soc. Myc. de Fr. 1895, p. 226. — Peritheciis sparsis vel dense gregariis, superficialibus, elongato-conoideis, atris, glabris, 800–900 × 300–350 μ., coriaceis, hyphis paucis repentibus, crustosis, basi cinctis; ascis cylindraceis, longe stipitatis, 300 × 15-20, octosporis, paraphysatis, filiformibus, obvallatis; sporidiis brunneis, ellipticis, apice acutatis, inferne truncatis, 17-20 × 10, basi cauda hyalina auctis. 1862

Hab. in detritis putridis in Æquatoria (v. Lagerheim).

8. **Sordaria minor** (E. et E.) Sacc. et Syd. *Podospora minor* Ell. et Ev. Americ. Natur. 1897, p. 341. — Peritheciis laxe gregariis, erumpentibus, superficialibus, ovato-conicis, 500 × 400 μ., pilis brunneis laxe vestitis, ostiolo atro obtuso firmo breve cylindraceo excepto; ascis cylindraceis, 150 × 20; sporidiis oblique monostichis, ovato-ellipticis vel nucleiformibus, 25–35 × 15-22, basi appendicula cylindracea, obtusa, brunneola, 12-15 × 4 munitis, apice appendicula breviore, decidua. 1863

Hab. in culmis vetustis Zeae Maydis in Kansas Amer. bor. (Bartholomew).

9. **Sordaria tjibodiana** Penz. et Sacc. Malpighia XI, 1897, p. 395. — Peritheciis sparsis, raro binis coalitis, subglobosis, conico-papillatis, glabris, 0,7–1 mm. diam., carbonaceo-coriaceis, nigris; ascis cylindraceis, apice rotundatis, paraphysatis, 8-sporis, 95-110 × 12, stipite 56-60 × 4-5; sporidiis monostichis, ellipsoideis, 12-15 × 9, fuligineis, 2-guttulatis, utrinque brevissime apiculatis et subinde strato hyalino angustissimo obvolutis. 1864

Hab. in foliis siccis coriaceis, Tjibodas, Java. — A *Sordariis* phytogenis satis distincta

13. **Sordaria botryosa** Penz. et Sacc. Malpighia, XI. 1897. p. 395. 1865
— Perithecia hinc inde dense botryoso-aggregata stromateque carnoso-pulvinato suffultis, 1/4 mm. latis, globoso-conoideis, prominulis, papillatis, glabris; contextu caruosulo; ascis tereti-clavatis, longe stipitatis, 180-200 × 9-11, paraphysatis, 8-sporis; sporidiis inimo vermicularibus, hyalinis, 47-50 × 3 1/2, utrinque ciliatis, demum ovato-ellipsoideis, 15-18 × 11-12, fuligineis, infra cauda gracili hyalina æquilonga auctis.

Hab. ad ramos putres, Java. — Peritheciis congestis, fere *Botryosphæriæ*, a typo recedit; a *Coprolevæ* perithecii exsertis et sporidiis muco carentibus quoque distat.

PODOSORDARIA Ell. at Holw. Bot. Gaz. 1896, p. 37 (Etym. *pous* pes, et *Sordaria*, cui affinis). — Perithecia in stroma stipitatum unita, cetera ut in *Sordaria*.

1. **Podosordaria mexicana** Ell. et Holw. l. c. — Stromate breve sti- 1866
pitato irregulariter obconico, 1-1 1/2 mm. diam., supra parum mamillato, rufulo hepatico; contextu carnosulo; perithecis apicibus emergentibus, 3-10 in quoque stromate aggregatis, ovatis, globosis, 400-500 μ. diam.; ostiolis nigris, papilliformibus; ascis cylindraceis, obscure paraphysatis, breve stipitatis, octosporis, 115-150 × 15-20; sporidiis monostichis v. supra in asco distichis, ellipticis, primo subhyalinis, dein subnigrescentibus, opacis, 25-34 × 12-14.

Hab. in fimo vaccino, Cuernavaca, Mexico (Holway). — « An *Poroniæ* spec.? ».

ROSELLINIA De Not. — Syll. I, p. 252; IX, p. 495, XI, p. 280.

1 **Rosellinia Bigeloviæ** Ell. et Ev. Americ. Natur. 1897, p. 341. — 1867
Perithecis erumpenti-superficialibus sparsis v. gregariis et cæspitosis, ovato-globosis, 1/4-1/3 mm. diam., ostiolo distincto, acute papilliformi; ascis cylindraceis, circiter 50 × 5; sporidiis monostichis, oblongo ellipticis, brunneis 6-8 × 3 1/2-4 1/2; paraphysibus numerosis, filiformibus.

Hab. in truncis emortuis Bigeloviæ graveolentis in Colorado Amer. bor.

2. **Rosellinia muriculata** Ell. et Ev. Proc. Acad. Philad. 1895, p. 416. 1868
— Perithecis superficialibus, ovatis, deorsum leviter contractis, 200-220 × 180-200, tomento tenui albo mox evanido conspersis, dein nigris et muriculato-asperulis, ostiolo minute papilliformi; ascis cylindraceis, 75 × 6-7, p. sp. 55-60 μ., breve stipitatis, para

physatis, octosporis; sporidiis oblique monostichis, oblongo-ellipticis, pallide brunneis, 8–10 × 4–5.

Hab. in cortice interiore Populi moniliferæ, Kansas, Amer. bor. (Bartholomew).

3. **Rosellinia radiciperda** Massee, Kew Bull. n. 109, 1896, p. 1, c. tab. — Peritheciis superficialibus, dense gregariis, globosis, papillatis, carbonaceis, nigris, majusculis, 2 mm. diam., subiculo conidiophoro, hirsuto, rigidulo insidentibus; ascis cylindricis, prælongis, apice obtusis, stipitatis, obturaculo cylindraceo præditis, octosporis, paraphysibus filiformibus, guttulatis obvallatis; sporidiis monostichis, breve fusoideo-navicularibus, inæquilateris, 30-40 × 8-10 (ex icone), fuligineis 1-2-guttulatis. 1869

Hab. in radicibus et basi truncorum Piri Mali cui valde noxia, in Nova Zelandia (Hooper et Colenso). — Status conidiophorus hyphis fasciculatis, sursum ramosis, conidiis ovoideis, dilute fuscis, 9-10 × 5 (ex icone). Charactere *Dematophoræ,* quæ ut demonstravit cl. Berlese, nil est nisi *Rosellinia.*

4. **Rosellinia Linderæ** Peck, 49 Rep. Stat. Bot. N. York, 1896, p. 24. — Peritheciis numerosis, gregariis, nudis, basi ligno leniter immersis, 1 mm. latis, impolitis v. rugulosis, obtusis, supra perforatis, opacis, nigris; ascis gracillimis, longe pedicellatis, p. sp. 63-73 × 4-5; sporidiis monostichis, oblongo-ellipticis, coloratis, 10½-13 × 4, sæpe 1 vel 2-nucleatis. 1870

Hab. in ramulis Linderae Benzoin, New York Amer. bor.

5. **Rosellinia confertissima** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 126. — Peritheciis superficialibus, dense gregariis, globosis, 350-500 μ. diam., grumulosis, farinoso-pubescentibus, dein subglabris, tenuiter tunicatis; ostiolo prominulo, mammiformi; sporidiis ellipticis, 8-10 × 4, continuis, brunneis. 1871

Hab. in ligno vetusto, Ohio Amer. bor. (Morgan).

6. **Rosellinia flexipila** Sacc. Malpighia, XI, 1897, p. 284. — Peritheciis laxe gregariis v. subsparsis, ligno denigrato superficialibus globoso-conoideis, carbonaceis, totis nigris, intus nitidis, 0,3-0,5 mm. diam., pilis flexuosis filiformibus fuligineis non v. obsolete septatis, 150 × 6 laxe vestitis, ostiolo obtuse conico; ascis anguste cylindraceis 120-140 × 7, breviter stipitatis, octosporis; paraphysibus filiformibus; sporidiis monostichis, oblongis, utrinque obtusulis, rectis, 18 × 5½-6, fuligineis, 1-2-guttulatis. 1872

Hab. in ramis putridis decorticatis, Riva-Valdobbia, Italia (Carestia). — Ex subg. *Coniochætæ.*

7. **Rosellinia poliosa** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 439. — Peritheciis hemisphærico-prominentibus, 1 $^3/_4$-2 mm. diam., tomento tenui cinereo (an semper?) vestitis; ostiolo papilliformi; ascis cylindraceis, 150-200 × 13-16, paraphysatis?, octosporis; sporidiis late oblongo-fusoideis, brunneis, demum subopacis in juventute utrinque pallidioribus, 25-35 × 12-15. 1873

Hab. in ligno emortuo, Mexico (Egeling).

8. **Rosellinia compressa** Ell. et Dearn. Proc. of the Canad Inst. 1897, p. 89. — Peritheciis sparsis v. sæpe 4-5 v. pluribus congregatis, interdum 2-3 subconfluentibus, superficialibus, depresso-globosis, circ. $^1/_2$ mm. diam., membranaceis, pilis nigris spiriformibus 20-39 μ. longis parce vestitis; ostiolo minuto papillato; ascis cylindraceis, 75 × 10-11, obscure paraphysatis; sporidiis monostichis, ellipsoideis, obtusis, valde compressis, 12-16 × 8-10, e latere 3 μ. cr. 1874

Hab. in ramis Ulmi decorticatis, Granton Ost. Canada Am. bor.

9. **Rosellinia subcompressa** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 277. — Peritheciis gregariis superficialibus, $^1/_4$ mm. diam., basi ligno leviter immersis, ostiolo papilliformi; ascis cylindraceis, breve stipitatis, paraphysatis, octosporis; sporidiis monostichis ellipticis, compressis, 6-9 × 5-6, circiter 3 $^1/_2$ μ. crassis. 1875

Hab. in ligno vetusto decorticato Gossypii, S. Dakota Amer. bor.

10. **Rosellinia obtusispora** Penz. et Sacc. Malpighia XI, 1897, p. 394. — Peritheciis laxe gregariis, basi insculpta subsuperficialibus, carbonaceis, subglobosis, 1 mm. diam., apice obtusis et minutissime papillatis, nigris, subnitidis; ascis (jam resorptis); sporidiis ellipsoideis, utrinque obtusis et subinde fere truncatis, 21-23 × 8-10, fuligineis. 1876

Hab. in cortice ramorum putrescentium, Java. — Perithecia, peridermio partim consumpto, non raro in colliculis corticalibus orta et tunc elevata videntur. Habitus fere *R. subiculatæ*, sed subiculum nullum (v. elapsum?) et sporidia diversa.

11. **Rosellinia Rehmiana** P. Henn. Hedw. 1897, p. 229. — Peritheciis dense gregariis, interdum glomeratis vel confluentibus, superficialibus, carbonaceo-atris, opacis, levibus, glabris, sphæroideis, 0,7-0,9 . diametro, ostiolo longe rostrato usque ad 7 mm. longo vel papilliformi; ascis cylindraceis subclavatis 8-sporis, breve stipitatis; sporidiis oblique monostichis, oblongatis inæquilateralibus, subcurvulis, continuis, utrinque rotundatis, 2 guttulatis, flavobrunneis dein fuscis, 6-9 × 3 $^1/_2$-4 $^1/_2$. 1877

Hab. in ligno pr. Blumenau Brasiliæ (MOELLER).

12. **Rosellinia seriata** Hazsl. Math. es term. Közlem. XXV, 2, Budapest. 1892, p. 51, t. III, fig. 9. — Peritheciis in series densas, parallelas in superficie ligni dispositis globosis, ostiolo papillæformi excepto, setis simplicibus apice pellucidis tectis; ascis obovatis, breviter pedicellatis, 8-sporis; sporidiis aggregatis, ovalibus, in utroque apice subacutis, 20 × 10-14. 1678

Hab. in ligno putrido in Hungaria.

13. **Rosellinia metallica** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 49, tab. II, fig. 8. — Peritheciis dispersis, sed gregariis, globosis, aterrimis, splendidis, minutis, iis *Melanommatis Pulvis-pyrii* similibus vel illis minoribus, ostiolo papilliformi; ascis cylindricis, breviter stipitatis, 8-sporis; sporidiis monostichis, ovatis v. ovalibus, 14 × 6-7. 1679

Hab. ad truncos in Hungaria.

14. **Rosellinia gomzeensis** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 12. — Sparsa plus minus immersa; peritheciis e globoso ovatis, $^1/_3$ mm., ostiolo obtuso confluente sæpius 3-4-sulcato, rugosiusculis, glabris; ascis cylindraceis 8-sporis, 90 × 7; sporidiis monostichis, oblongis, fuliginoso-fuscis, pellucidis, rectis, 11-14 × 3 $^1/_2$-4. 1680

Hab. in ligno putrido Pini, loco dicto Gomzé pr. Liège Belgii.

15. **Rosellinia calospora** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 12, tab. A. fig. 4. — Peritheciis sparsis, emergentibus, globosis, breve papillatis, glabris, $^2/_{10}$ mm. diam., contextu coriaceo brunneo; ascis cylindraceis in stipitem (30-40 μ. longum) attenuatis, p. sp. 150 × 15, sursum truncatis; paraphysibus paucis articulatis; sporidiis monostichis, ellipticis, fuscis, demum atro-opacis, 20-24 × 15, episporio elongate et regulariter foveolato. 1681

Hab. in ligni scobe paulo carbonata pr. Liège Belgii.

16. **Rosellinia Pulvis-pyrius** Penz. et Sacc. Malpighia XI, 1897, p. 394. — Peritheciis dense et late gregariis, globoso-conoideis, opace nigris, glabris, 0,2, mm. diam., tenuiter carbonaceis; ascis (jam resorptis); sporidiis ovoideis, 18-21 × 9-12, fuligineis, cauda hyalina, teretiuscula, 8-10 . . longa basi sæpe auctis. 1682

Hab. in ramis decorticatis putridis, Java. — Affinis videtur *R. millegranæ* et *R. pulveraceæ*, sed sporidia apiculata et majora.

17. **Rosellinia tricharga** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 48, tab. III, fig. 11. — Peritheciis in mycelio 1683

nigro tomentiformi, ostiolo fuscescente, nudo, circa ostiolum setosis, versum basim pilis longioribus crispatis tectis; ascis cylindricis; sporidiis uniseriatis, 8-9 × 7-8.

Hab. in ligno emortuo in Hungaria. — Hæc species et tres seqq. a cl. Hazslinsky ducuntur ad sect. *Mazospora* Hazsl: Sporidia subglobosa in punctis oppositis appendicula hyalina semiglobosa ornata. Perithecia stant vel in mycelio nigro tomentiformi vel in mycelio latitante.

18. **Rosellinia campsopila** Hazsl. l. c. p. 48, fig. 10. — Peritheciis in superficie ligni nudis, pilosis, prout *Rosellinia malacotricha*, a qua specie nonnisi appendiculis differt; sporidia sunt vel globosa vel ovalia posterioraque 10 × 8.

Hab. ad lignum nudum in Hungaria.

19. **Rosellinia trachypila** Hazsl. l. c. p. 49 fig. 12. — Peritheciis globsois, per totam superficiem, excepto ostiolo, pilis flexuosis tectis, sed circa ostiolum setis rigidis asperis coronatis; sporidiis subglobosis, 12-16 × 10-12.

Hab. in ramis emortuis in Hungaria.

20. **Rosellinia macra** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 126. — Peritheciis gregariis, superficialibus, convexo-applanatis, $^1/_4$-$^1/_3$ mm. diam., haud lævigatis, ostiolo papilliformi, minuto; ascis non visis; sporidiis oblongo-ellipticis, brunneis, subacutis, 20-30 × 10-12, nonnullis medio stria pallidiore, sed vero non septatis.

Hab. in foliis plantarum monocotyledonearum in Florida Amer. bor. (Morgan). — Perithecia pæne ut in *Microthyrio*.

21. **Rosellinia elæicola** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 77. — Peritheciis gregariis, sparsis, singularibus, sæpe confluentibus, subglobosis v. ovoideis, irregularibus, vertice papillatis v. cornutis, atro-carbonaceis, rugulosis, intus pallidis, circiter 1 mm. diam.; ascis cylindraceis, stipitatis, octosporis, 105-130 × 11-16; sporidiis oblongis, navicularibus, inæquilateralibus, oblique monostichis, atris, obtusiusculis, 13-17 × 7-9.

Hab. in foliorum vaginis putridis Elæis guineensis, Kamerun (Jungner).

22. **Rosellinia marginato-clypeata** Penz. et Sacc. Malpighia XI, 1897, p. 393. — Peritheciis laxe gregariis, innato-erumpentibus, globosis, 0,3 mm. diam., papillatis, carbonaceis, nigris, circumcirca peridermio nigrificato parum elevato arcte adhærente cinctis; ascis (jam fere resorptis); sporidiis ovato-fusoideis, utrinque acutiusculis,

sæpe inæquilateris, 15-18 × 7-8, fuligineis (senio rimose longitrorsum dehiscentibus).

Hab. in petiolis emortuis Palmarum, Java. — Perithecia cum pseudostromate ambiente 1,3 mm. lata.

23. **Rosellinia formosa** Penz. et Sacc. Malpighia XI, 1897, p. 393. 1889
— Peritheciis laxe gregariis, depresso globosis, eximie tornatis, basi applanata, superficialibus, levibus, atro-nitidulis, 0,7-1 mm. latis, 0,5 mm. altis, ostiolo brevi acuto; ascis cylindraceis, demum angustato-stipitatis, 60-75 × 5-6 ½, apice rotundatis, octosporis; paraphysibus filiformibus, guttulatis; sporidiis monostichis, oblongo-ellipsoideis, 7-8 ½ × 3 ½-4 ½, guttulatis, fuligineis.

Hab. in caulibus Elettariæ putrefactis, Java. — Var. **flavo-zonata** Penz. et Sacc. l. c. p. 394. — Perithecia, asci sporidiaque fere ut in specie, sed inter et circa perithecia adhæret byssus tenuissima, flavida, ex hyphis subhyalinis, vix 0,7 μ. crassis, membranula anhista junctis formata; asci 60 × 5; stipes 40-45 × 2; sporidia 9-10 × 5 ½, fuliginea. An byssus speciei vere pertinens? — Hab. in culmis putridis Bambusæ, Java.

24. **Rosellinia decipiens** Penz. et Sacc. Malpighia, XI, 1897, p. 393. — 1890
Peritheciis laxe gregariis, superficialibus, levibus, nigris, globosis, papillatis, 0,7-0,8 mm. diam.; ascis cylindraceis, breve stipitatis, 150-200 × 15-18, apice obtusulis, obturaculo manifesto, octosporis; paraphysibus non visis; sporidiis oblique monostichis, oblongo-fusoideis, leviter inæquilateris, 45-50 × 9 (rarius 45 × 11), utrinque acutis, fuligineis.

Hab. in vaginis putridis Bambusæ in silva virginea M. Salak, Java. — Habitus fere *R. mammiformis*, sed sporidia duplo majora.

25. **Rosellinia geasteroides** Ell. et Ev. Proc. Acad. Philad. 1895. 1891
p. 415. — Peritheciis gregariis, superficialibus, depresso-globosis, ¾ mm. diam., ostiolo distincto, papilliformi donatis, duplicato-tunicatis, peridiolo exteriore membranaceo, mox 5-reflexo-lobato et *Geasteris* speciem minutam simulante; ascis cylindraceis, 100-110 × 6, p. sp. 75-80 μ., paraphysatis, octosporis; sporidiis monostichis, inæquilateraliter ellipticis, mox opacis, 10-12 × 5.

Hab. in culmis dejectis Arundinariæ, Louisiana, Amer. bor. (Langlois). — « Certe e typo *Astrocystis* ».

26. **Rosellinia Chusqueæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 224. 1892
— Subiculo crustaceo, brunneo-atro, ex hyphis brunneis, repentibus, septatis, ramosis, 5-6 μ. crassis composito; peritheciis gla-

bris, mammiformibus, apice papillatis, obscure brunneis, $^1/_8$–$^1/_2$ mm. latis, gregariis v. sparsis; ascis cylindraceis, 130 × 10, octosporis, filiformi-paraphysatis; sporidiis monostichis, brunneis, ovatis, inæquilateralibus, sæpe guttulatis, 30 × 7–9, halone mucoso, hyalino cinctis.

Hab. in truncis emortuis Chusqueæ in Æquatoria (v. Lagerheim).

27. **Rosellinia samoensis** P. Henn. Engl. Jahrb. XXIII, 1896, p. 287. — Peritheciis gregariis vel sparsis, interdum confluentibus, superficialibus, hemisphæricis v. subpulvinatis, atris, carbonaceis, subnitentibus, apice conico papillatis, subiculo effuso, atro, intus pallidis 1–1$^1/_2$ mm. diam.; ascis cylindraceis, 70–95 × 7–8$^1/_2$ (p. sporif.), apice obtusis, breviter stipitatis, 8-sporis; sporidiis cymbiformibus v. oblongo-ellipsoideis, utrinque obtusiusculis, atro-castaneis, 1–2-guttulatis, 15–17 × 6-8.

Hab. ad culmum Gramineæ cujusdam in ins. Upolu ins. samoens. (Reinecke).

28. **Rosellinia groedensis** Zopf, Nov. Act. LXX, 1897, p. 104 cum fig. 1–13, Hedw. 1896, p. 350. — Peritheciis globoso-ellipsoideis, plerumque gibbosis, atris, superficialibus v. basi immersis, 0,3–0,5 mm. crassis, 0,3-0,6 mm. altis, plerumque gregariis, e mycelio obscuro oriundis; ascis cylindraceis, stipitatis, octosporis, jodo non cœrulescentibus; sporidiis variæ magnitudinis, ellipticis, fusiformibus, citriformibus v. ovoideis, unicellularibus, latere parum depressis, obscuris, 16–24 × 10-12$^1/_2$; paraphysibus gracilibus, minute et majuscule pluriguttulatis, ascos superantibus, in periphyses transeuntibus.

Hab. in thallo Pertusariæ sulphurellæ var. variolosæ in Alpibus (Arnold).

29. **Rosellinia alpestris** Zopf, Nov. Acta LXX, 1897, p. 185, cum fig. 82-85, Hedw. 1896, p. 314. — Peritheciis solitariis v. gregariis, innatis, piriformibus v. ovoideis, nigris, 0,1–0,3 mm. latis; ascis brevissime stipitatis, oblongo-ovoideis, 45–50 × 22–25, octosporis, jodo rubescentibus; sporidiis unicellularibus, ellipsoideis v. ovoideis, brunneis, guttulatis, 11$^1/_2$–16 × 7$^1/_2$–10; paraphysibus filiformibus, parce ramosis, 0,8-1,5 μ. crassis.

Hab. in thallo Acarosporæ glaucocarpæ in Alpibus.

30. **Rosellinia subterranea** Sacc. et Syd. Sic dicenda est *Rosellinia sepulta* (Boud.) Sacc. in Syll. IX, p. 497, quum exstet anterior *R. sepulta* (B. et C.) Sacc. in Syll. I, p. 256.

PLEOSPOROPSIS Oerst. in Naturhist. Foren. Vidensk. Meddel. 1865, p. 128, nec Syll. fung. III, p. 693 (= *Æcidium*). (Etym. *Pleospora* cui, sec. auct., affinis). — A. gen. *Rosellinia* vix tantum differre videtur ostiolis nullis v. obsoletis et præcipue formis metageneticis. An satis?

1. **Pleosporopsis strobilorum** Oersted, in Naturhist. Foren. Vidensk. Meddel. 1865, p. 28, tab. V et VI. — Peritheciis subglobosis, circ. $^1/_4$ mm. diam., levibus, glabris, sparsis, discretis v. passim coalitis, duris, nigris; ascis lineari-cylindraceis, 160–170 × 6–7, apice truncatis bidenticulatis, 8-sporis; sporidiis ovoideis, rectis, continuis, 12-13 × 5-6, monostichis, episporio levi, crasso, atro, longitrorsum dehiscente. 1897

Hab. in squamis strobilorum Pini montanæ in silvis Daniæ Adsunt status macro-et microconidicus (*Stemphylii* et *Cladosporii* spp.) et pycnidicus (*Sporonema?*), de quibus cfr. l. c.

ANTHOSTOMELLA Sacc. — Syll. I, p. 278, IX, p. 505, XI, p. 231.

1. **Anthostomella Lambottiana** Fautr. Rev. Mycol. 1895, p. 167. — Peritheciis gregariis, subsuperficialibus, nigris, rugulosis, plerumque ostiolo conico-elongato munitis; ascis cylindraceis, 70–80 × 10-11, paraphysatis; sporidiis monostichis, obliquis, ovalibus, brunneis, majuscule et nitido-biguttulatis, simplicibus, 10–11 × 6–7. 1898

Hab. in trunco decorticato Persicæ vulgaris in Gallia.

2. **Anthostomella aziaca** Sacc. et Flag. Bull. Soc. Myc. de Fr. 1896, p. 65, tab. V, fig. 3. — Peritheciis laxe gregariis, sub-cutaneis, subglobosis, atris, vix 0,5 mm. diam., ostiolo breviter conoideo erumpente, epidermide ambiente fere immutata; ascis cylindricis, apice rotundatis lumineque crenulato, 100 × 8-9 μ., breve crasse stipitatis, parce pseudoparaphysatis, 8-sporis; sporidiis monostichis, ovoideis, 15-16 × 8–9, fuligineis, initio muco tenui obductis. 1899

Hab. in caulibus emortuis Hellebori fœtidi pr. Rigny Galliæ. — Affinis, sed sat diversa, ab *A. Tomico*.

3. **Anthostomella phæosticta** (Berk.) Sacc.-Syll. I, p. 279. — **A. Iridis** Fautr. Rev. Mycol. 1896, p. 68. — Peritheciis minutis, rotundatis, dein depressis, numerosissimis, interdum confluentibus, matricem nigrificantibus, subcutaneis, ostiolo brevi emergentibus; ascis cylindraceis, deorsum attenuatis, 60 × 6, paraphysatis; sporidiis monostichis, simplicibus rectis, ovalibus, obscuris, 8–10 × 4–5. 1900

Hab. in foliis Iridis fœtidissimæ in Gallia. — A typo differt sporidiis rectis et crassioribus.

4. **Anthostomella Puyæ** P. Henn. et Lind. Hedw. 1897, p. 226. — 1901
Maculis opiphyllis, inflatis, oblongis confluentibusque, pallidis; peritheciis matrici immersis, sparsis, plerumque singularibus, ca. 0,8 mm. diametro, subsphæroideis, epidermide nigrificata tectis, ostiolis haud prominulis; ascis cylindraceo-clavatis, plus minus stipitatis, apice obtuso-rotundatis, 8-sporis, rectis vel curvulis, p. sporif. 160–190 × 16-21; paraphysibus linearibus articulatis, multiguttulatis, hyalinis, 3–3 $^1/_2$ μ. crassis; sporidiis oblique monostichis, oblongis, utrinque rotundatis, primo sæpe basi hyalino-appendiculatis, brunneis, 22–30 × 14-17, episporio minute verrucoso.

Hab. in foliis Puyæ giganteæ et coarctatæ pr. Concepcion in Chile (Neger).

5. **Anthostomella obtusispora** Penz. et Sacc. Malpighia, XI, 1897, 1902
p. 392. — Peritheciis laxe gregariis, immersis, globosis, nigris, membranaceis, 0,3-0,5 mm. diam., ostiolis longiusculis, sed vix punctiformi-erumpentibus; ascis cylindraceis, apice rotundatis, 160 × 12-14 part. sporif.; paraphysibus non visis; sporidiis monostichis, ellipsoideis, utrinque obtusatis, 20–22 × 10-11, opace fuligineis.

Hab. in petiolis Palmarum emortuis, Java. — Affinis videtur *A. melanostictæ* Ell. et Ev.

6. **Anthostomella grandispora** Penz. et Sacc. Malpighia, XI, 1897, 1903
p. 392. — Peritheciis laxe gregariis, immersis et vix ostiolo minuto erumpentibus, globoso-depressis, 0,3 mm. diam., nigris, membranaceis; ascis crasse clavatis, breve stipitatis, circiter 100 × 24 (jam fere resorptis); paraphysibus non visis; sporidiis distichis, oblongo-ellipsoideis, utrinque rotundatis, 32 × 9, lenissime inæquilateris, crasse 1-guttatis, atro-fuligineis.

Hab. in foliis putrescentibus Kentiæ sp., socia *Pestalozzia funerea*, Java.

7. **Anthostomella albo-cincta** Ell. et Ev. Proc. Acad. Philad. 1895, 1904
p. 424. — Peritheciis plerumque sparsis, innatis, linea nulla cinctis, globosis, 500-600 μ. diam., crasse coriaceo-tunicatis; ostiolis erumpentibus, globosis, sæpe collabentibus, epidermide albescente leviter elevata cinctis; ascis cylindraceis, stipitatis, p. sp. 80-100 × 6-7; paraphysibus evanescentibus; sporidiis monostichis, plerumque excedentibus, subfusoideo-oblongis, vix curvulis, 13-16 × 3 $^1/_2$-4, brunneis, appendicula hyalina minuta subglobosa basi ornatis.

Hab. in culmis Arundinariæ, Louisiana, Amer. bor. (Langlois).

— Ab *Anthostomella stegophora* differt peritheciis non seriatis et sporidiis oblongis appendiculatis, ab *A. Bambusæ* stromatibus nullis.

TYMPANOPSIS Starb. — Syll. XI, p. 283.

1. **Tympanopsis cœlosphærioides** Penz. et Sacc. Malpighia XI, 1897. 1905
p. 394. — Peritheciis gregariis v. hinc inde in soros subaggregatis, superficialibus, carbonaceo-molliusculis, e globoso mox collabascendo concavo-patellaribus, minutissime rugulosis, nigris, 0,5-0,8 mm. diam., ostiolo vix manifesto, contextu grosse celluloso, fuligineo; ascis tereti-clavatis, apice rotundatis, breve stipitatis, 75–90 × 15-18, aparaphysatis, 8-sporis; sporidiis mono- v. distichis, ellipsoideis, 18–20 × 10-12, fuligineis.

Hab. in corticibus, Java. — Secunda pulcri generis Starbäckiani species.

ANTHOSTOMA Nits. — Syll. I, p. 293, IX, p. 514, XI, p. 283.

1. **Anthostoma** *(Eu-Anthostoma)* **tjibodense** Penz. et Sacc. Malpighia. 1906
XI, 1897, pag. 502. — Stromate corticali, maculas atro-fuligineas sinuosas, 1-2 cm. long. in matricis superficie sublevigata efformante; peritheciis gregariis, omnino immersis, globosis, nigris, 0,5 mm. diam., ostiolis punctiformibus, non emergentibus; ascis cylindraceis, apice rotundatis, breve stipitatis, 80-90 × 6-7, octosporis; paraphysibus guttulatis; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque obtusulis, 12–14 × 5–6, fuligineis, 2-3-nucleatis.

Hab. in rhachide emortua Plectocomiæ, Tjibodas, ins. Java. — Affine videtur *Ant. capnoidi* (Berk.) Sacc.

2. **Anthostoma** *(Eu-Anthostoma)* **simplex** (Otth) Sacc. Hedw. 1896, 1907
p. 25, *Quaternaria simplex* (Otth) Nke. in Otth Bern. Mittheil. 1870, p. 95. — Sparsum v. gregarium; peritheciis majusculis subglobosis, tenuibus, singulis, cortice immersis crustaque albido-flavescenti obductis, ostiolo brevi truncatulo non excedente; nucleo gelatinoso nigricante; ascis cylindricis, deorsum breviter attenuatis, octosporis; sporidiis monostichis, ellipsoideis, obtusis, continuis, brunneis, demum nigro-fuscis, 26–30 × 14, strato tenui hyalino obvolutis; paraphysibus crassiusculis, guttulatis.

Hab. in ramis emortuis Tiliæ in Helvetia.

3. **Anthostoma** *(Fuckelia)* **tetrastagum** Delacr. Bull. Soc. Mycol. de 1908
France, XIII, 1897, p. 124, tab. X, fig. *G*. — Stromatibus in cortice inquinato immersis; peritheciis paucis, vix papillatis, 320-350 μ.; mycelio fusco-melleo, tenui; ascis cylindraceis, ad basim attenuatis, 105 × 10, octosporis; sporidiis elongatis, utrinque attenuatis, rectis v. paulum curvulis, fuligineis, continuis, quadriguttulatis, 18 × 6, in asco inordinatis; paraphysibus parcis.

Hab. in cortice Quercus pr. Rigny-sur-Arroux, Saône-et-Loire Galliæ.

4. **Anthostoma** *(Fuckelia)* **Verrucula** Penz. et Sacc. Malpighia XI, 1909
1897, pag. 502. — Stromatibus gregariis, erumpenti-superficialibus, globose-conicis, 2 mm. diam., nigricantibus, rugulosis, fragmentis minutis corticalibus sæpe oblinitis, intus albis; peritheciis mono-distichis paucis, globosis, 0.4 mm. diam., nigris, ostiolis non emergentibus; ascis cylindraceis, apice rotundatis, stipitatis, 100-120 × 8-9, cum stipite 135 μ. l., filiformi-paraphysatis, octosporis; sporidiis monostichis, oblongo-amygdaloideis, utrinque acutulis, 17-18 × 8-9, biguttatis, fuligineis.

Hab. in ramis emortuis, Tjibodas, ins. Java. — Stromatis et sporidiorum notis ab *A. turgido* et *gastrino* prædistinctum.

5. **Anthostoma** *(Fuckelia)* **valsarioides** Penz. et Sacc. Malpighia XI, 1910
1897, pag. 502. — Stromatibus erumpentibus, corticolis, gregariis, sæpe confluentibus, 2-3 mm. diam., pulvinatis, nigris, inæqualibus; peritheciis mono-distichis, globulosis, 0,3 mm. d., nigris, extus albo-furfuraceis, ostiolis brevissime emergentibus, subrotundis, minutis; ascis cylindraceo-clavatis, apice obtusis, breve stipitatis, 60-66 × 9, p. sporif., octosporis; sporidiis distichis, cylindraceis, curvulis, utrinque rotundatis, 19-21 × 5, olivaceo-fuligineis, plasmate 2-4-partito.

Hab. in ramis corticatis, Tjibodas ins. Java. — Sporidiis spurie seu simulate septatis *Valsariam* in mentem revocat.

6. **Anthostoma** *(Fuckelia)* **Ailanthi** (Otth) Nke. in Otth, Bern. Mittheil. 1911
1870, p 101 *(Phæosperma)*. — Stromate corticali vix pustulato, strato nigricante late ambiente limitato; peritheciis stipatis, subglobosis, in corpus subglobosum quasi connatis, immersis; collis fasciculatis, ostiolis incrassatis in discum nigrum erumpentem constipatis; ascis cylindricis, breviter deorsum tenuatis, 8-sporis; sporidiis monostichis, ellipsoideis, fumosis, 12-14 × 4.

Hab. in ramis corticatis Ailanthi in Helvetia.

7. **Anthostoma Berlesii** Sacc. et Syd. Sic nominandum est *Anthos-* 1912
stoma anceps Berl. et F. Sacc. in Sacc. Syll. IX, p. 522, quum exstet anterius *A. anceps* Sacc. et Roum. Syll. I, p. 299.

XYLARIA Hill. — Syll. I, p. 309, IX, p. 523, XI, p. 283.

1. **Xylaria holobapha** Berk.-Syll. IX, p. 523. — Var. **camptospora** 1913
Penz. et Sacc. Malp. 1897, pag. 496. — Distinguitur sporidiis

(oblique monostichis v. subdistichis) fusoideis, angustioribus, fortius curvatis, 28-30 × 5-6, fuligineis.

Hab. ad ligna, Tjibodas, ins. Java.

2. **Xylaria torrubioides** Penz. et Sacc. Malpighia XI, 1897, pag. 496. 1914
— Gregaria; stromatibus erectis, cylindraceis, sursum attenuato-acutis, sæpe curvulis, rarius furcatis, griseo-cinereis, 15-20 mm. long., 1-1,5 mm. diam., stipite sterili brevissimo, clava fertili vix tenuiore; peritheciis semiimmersis, ostiolo conico prominente, nigris, carbonaceis, 180-200 μ. diam.; ascis cylindraceis, 18-20 × 3-3,5; sporidiis monostichis, minutissimis, 2,5-3 × 2-2,5, globoso-ellipticis, atrobrunneis.

Hab. in nidis Termitidum in Horto bot. Bogoriensi in Java. — Videtur affinis *Xyl. Gardneri* Berk. var. *minori* (Syll. fung. I, p. 312), sed est adhuc tenuior.

3. **Xylaria leucosticta** Penz. et Sacc. Malpighia XI, 1897, pag. 496. 1915
— Stromatibus sparsis, erectis, cylindraceis, 6-10 centim. long., 10-14 mm. diam., dichotomis vel parce ramosis, interdum ramis iterum divisis, cylindraceis, æqualibus, atris, apice obtuso, rotundato, pallidiore; stromatis superficie æqualiter conspersa punctulis albis, quæ sub lente e drusis crystallinis (oxalat. calcic.) formata sese demonstrant.

Hab. in truncis emortuis, Tjibodas, ins. Java. — Perithecia in speciminibus haud matura visa: sed species punctorum alborum præsentia satis ab affinibus (*Xyl. diceras* Lév., *X. variabilis* Curr.) distincta.

4. **Xylaria globosa** (Spr. et Fr.) Mont.-Syll. I, p. 373 (sub Hypoxylo). — Var. **minor** Sacc. et Penz. Malpighia 1897, pag. 497. 1916
— Stromatibus minutis, 2-3 mm. diam.; peritheciis paucis majusculis, omnino immersis; ascis cylindraceis, 150-160 × 7-8, paraphysatis; sporidiis anguste phaseoliformibus, 24 × 8, fuligineis.

Hab. ad cortices emortuos in Java. — Var. **vestita** P. et S. l. c.: stromatibus globosis, basi stipitiformi subsessilibus, 3 mm. d., *Graphii socii* P. et S. (Cfr.) stipitibus rigidis, radiantibus hirtis; ascis cylindraceis, 170-180 × 10, paraphysatis; sporidiis phaseoliformibus, 21-24 × 8-9, olivaceo-fuligineis. Ad ramos corticatos putres in Java.

5. **Xylaria pilæformis** B. et C. U. S. Expl. Exped. p. 201, fig. 8. 1917
Cfr. Syll. I, p. 373. — f. **minor** Penz. et Sacc. Malpighia XI, 1897, pag. 497. — Stromatibus globoso-depressis, 6-7 mm. lat., rugulosis, fusco-nigris, basi punctiformi affixis, subtus radiatim

rimosis, intus albis; peritheciis monostichis, nigris, vix 0,5 mm. diam., omnino immersis; ascis cylindricis paraphysatis, 100-115 × 9; sporidiis breviter phaseoliformibus, 15-16 × 6,5-8, fuligineis.

Hab. cum typo in ins. Java. — A *X. globosa* præcipue sporidiis multo brevioribus differt.

6. **Xylaria humilis** Penz. et Sacc. Malpighia XI, 1897, p. 497. — 1918
Stromatibus gregariis, minutis, 2-3 mm. diam., superficialibus, basi stipitiformi latente instructis, inæqualiter globosis, minute verruculosis, nigricantibus, intus albis; peritheciis monostichis, 0,3 mm. diam., nigris, omnino immersis; ascis jam elapsis; sporidiis planoconvexis, 15-16 × 6, fuligineis.

Hab. ad ramos corticatos, putres, Tjibodas, ins. Java. — Forma in Bambusa? M. Salak, sterilis videtur eadem (vel potius *X. Clavulus* B. et C.?). A *X. pilæformi* differt stromatibus minoribus, subtus non radiatim rimosis.

7. **Xylaria heloidea** Penz. et Sacc. Malpighia XI, 1897, pag. 498. 1919
— Stipitata, capitata, gregaria, minuta; peritheciis paucis (4-8) capitulum subglobosum vix 2 mm. diam. formantibus, globoso-papillatis, protuberantibus, nigris, 0,7 mm. diam., stipite filiformi tenuissime striato, 7-9 mm. alto, 0,3 mm. cr., glaberrimo; ascis cylindraceis, apice rotundatis, breviter stipitatis, 90-100 × 8-9, paraphysatis, octosporis; sporidiis oblique monostichis, breviter fusoideis, inæquilateris, 15-17 × 6, fuligineis.

Hab. in leguminibus dejectis putridis in Horto bot. Bogoriensi, ins. Java. — Pulchella species, ex affinitate *X. pilæcipitis* et *stilboideæ*. Stromata sterilia, apice albo-roseo (conidiis non visis), sæpe elongantur.

8. **Xylaria polysticha** Penz. et Sacc. Malpighia XI, 1897, pag. 498. 1920
— Stromatibus sparsis, erectis vel curvulis, 4,5-5,5 centim. altis, stipite clavam æquante, cylindrico, atro, glabro, 50 mm. diam.; clava fertili paullo crassiore (55-60 mm. diam.) carnoso-coriacea, oblique inserta, oblonga, apice obtuse rotundato, brunnea; contextu interiori brunneolo vel albido; peritheciis plus minus profunde immersis, 3-4-stichis, sphæricis, 400-500 mm. diam., ostiolo plus minus longo, tenui (85-95 μ. d.) recto, omnino immerso præditis; ascis 31-37 × 4-5; sporidiis uniseriatis, minutulis, atro-brunneis, ellipticis, 4,5-5 × 3,5.

Hab. ad truncos in ins. Java. — Peraffinis videtur *X. spathulatæ* B. et Br., cujus sporidia ex Cooke Grev. XI, p. 83 sunt equidem 6 × 3 (nec 10 . l. ut habent B. et Br.); sed sec. iconem

Cookei, Grev. XI, t. 168, fig. 91, perithecia in *X. spathulata* sunt monosticha, nec 3-4-sticha, ut in specie javanica.

9. **Xylaria axifera** Mont.-Syll. I, p. 343. — Var. **perexigua** Penz. et Sacc. Malpighia XI, 1897, pag. 499. — Stipitibus capillaribus 4 mm. altis, clavula cum mucrone vix $1^1/_2$ mm. excedente; ascis immaturis. 1921

Hab. in foliis coriaceis, Tjibodas, ins. Java.

10. **Xylaria oocephala** Penz. et Sacc. Malpighia XI, 1897, pag. 500. — Gregaria, stipitata, capitata; stipite simplici, rarissime furcato, cylindrico, basi vix incrassata insititio, nigro, fusco-puberulo; capitulo globoso v. subellipsoideo, 1,5-2 mm. diam., ostiolis punctato-asperulo, glabro, atro-fusco, mucrone apicali brevissimo v. nullo; ascis cylindraceis, apice rotundatis, breve stipitatis, paraphysatis, 75-80 × 6, octosporis; sporidiis monostichis, ovato-coffeiformibus, 9 × 3-4, fuligineis. 1922

Hab. in ramulis dejectis, præsertim in filiceto Horti botan. Bogoriensis, ins. Java. — Affinis *X. aristatæ,* sed dignoscitur mucrone apicali nullo v. obsoleto, sporidiis paullo minoribus.

11. **Xylaria Readeri** F. Müll. Grev. 1893, p. 17. — Nigra; capitulo globoso v. late elliptico, 5-8 mm. longo, apice in mucronem brevem producto; stipite 7-10 cm. longo, pro parte majore in terra infosso, deorsum dense velutino, simplici, erecto, e rhizomate albido, horizontali oriundo; peritheciis paucis, magnis, prominentibus; ascis cylindraceis, breve pedicellatis, octosporis; sporidiis monostichis, subcylindraceis, leniter curvulis, utrinque obtusis, 14-15 × 5-6, pallide purpureo-brunneis. 1923

Hab. in terra sabulosa, Victoria Australiæ (F. Reader).

12. **Xylaria nutans** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 79. — Stromatibus clavatis, clavulis plerumque nutantibus, clavatis v. subglobosis, intus carnosis, farctis, pallidis, in medio longitudinaliter atro-strigosis, extus atro-griseis, reticulatis, transverse sulcato-impressis, apice subacuminatis v. submammillatis, 1-2 cm. longis, 5-7 mm. crassis; stipitibus teretibus, curvatis, farctis, atris, glabris, ca. 1-2 cm. longis, 2-3 mm. crassis; peritheciis subglobosis, monostichis, sub cortice nidulantibus et ostiolis minimis conoideis vix prominulis; ascis cylindraceo-clavatis, 8-sporis, 90-110 × 5-7 (pars sporif.), longe pedicellatis hyalinis; sporidiis monostichis, oblongis, navicularifformibus, utrinque obtusis, primo 1-2-guttulatis, fusco-brunneis, dein atris, 15-18 × 5-6. 1924

Hab. in truncis emortuis, Kamerun (Zenker et Staudt).

13. **Xylaria Telfairii** (Berk.) Sacc. Syll. I, p. 320. — Var. **camerunensis** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 79. — Stromatibus cæspitosis, stipitatis, clavatis, obtusis, circ. 4 cm. longis, 1 cm. latis, cortice tenui, griseo-flavescente tectis, ostiolis punctiformibus, verrucoso-obtusis, pallide nigricantibus, intus spongioso-carnosis, pallide flavis; stipite brevi, basi incrassato-discoideo; peritheciis ovoideis, carbonaceo-nigris, 0,5 mm. diam.; ascis octosporis, cylindraceis, breviter stipitatis, apice obtusis; sporidiis oblique monostichis, naviculiformibus, oblongis, inæquilateralibus, obtusis, primo 2-guttulatis, brunneis, dein atris, 14-20 × 7-9. 1925

Hab. in truncis putridis, Kamerun (Zenker et Staudt).

14. **Xylaria verruculosa** P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 78. — Stromatibus gregariis, fasciculatis, clavatis, atris, stipitatis, usque ad 3 cm. latis; clavulis oblongis v. clavatis, apice obtusis, tuberculato-verrucosis, $^1/_2$–2 cm. latis, 3-9 mm. crassis; stipite gracili, usque ad 2 cm. alto; peritheciis immersis, globosis, papillatis, circ. 0,5 mm. diam.; ascis cylindraceo-clavatis, stipitatis, octosporis; sporidiis oblongis, inæquilateralibus, curvatis, fuscis, dein atris, plerumque 15–25 × 7-9. 1926

Hab. in truncis, Kamerun (Jungner).

15. **Xylaria Trabuti** Pat. Bull. Soc. Mycol. de France, 1897, p. 211, tab. XII, fig. 4. — Stromatibus cæspitosis, erectis, raro solitariis, simplicibus v. ramosis, 1-2 cm. altis, nodulosis, versus apicem regulariter incrassatis, rotundato-obtusis, stromatibus ramosis, 1-2 sulcatis et compressis; clavula albida, dein glauco-viridula; stipite glabro, plus minusve aureo-notato; conidiis ovoideis, glaucis, 3-5 × 2-3; peritheciis non visis. 1927

Hab. in cotyledonibus Lataniæ in Algeria. — *X. carpophilæ* affinis.

16. **Xylaria bidentata** Pat. Bull. Soc. Myc. de France, 1895, p. 87. — Simplex v. bifida, solitaria v. binæ consociatæ, brunneæ, hispidæ, 4 mm. diam.; stipite nigro, glabro, cylindraceo v. compresso, 1-2 mm. lato, 1-2 cm. longo; clavula nigra, cylindracea, rugosa, plicata, 2-3 mm. lata, 5-7 cm. longa, gradatim attenuata, compressa, integra v. plerumque bidentata, dentibus circiter 1 cm. longis; peritheciis globulosis, immersis, ostiolis parum prominentibus; sporidiis brunneis, ellipticis, inæquilateralibus, 10-12 × 5. 1928

Hab. ad ligna putrescentia in regione congoana gallica (Dybowski).

HYPOXYLON Bull. — Syll. I, p. 352, IX, p. 543, XI, p. 285.

1. **Hypoxylon moriforme** P. Henn. Engl. Jahrb. XXIII, 1896, p. 287. 1929
Stromatibus hemisphæricis, sparsis, basi applanatis, cortice affixis, tuberculoso-rugosis, moriformibus, atris, carbonaceis, subnitentibus, 2–3 mm. diam., ostiolis punctiformibus, subpapillatis, minutis, annulato-marginatis; peritheciis subglobosis; ascis cylindraceis, obtusis, 8-sporis; sporidiis monostichis, ellipsoideis, utrinque obtusis, atro-brunneis, dein atris, 6–7 × 3 ½-4 ½.

Hab. in cortice in ins. Upolu ins. samoens. (Reinecke).

2. **Hypoxylon fibuliforme** Ell. et Ev. Bull. Labor. Nat. Hist. Univ. 1930
IV, 1896, p. 71. — Stromate lenticulari, 2-5 mm. diam., atro, sessili, ostiolis papilliformibus asperato; peritheciis elongatis, subcylindraceis, 1-1 ¼ × ⅓ mm., usque ad medium stromatis subpenetrantibus; ascis cylindraceis, p. sp. 60 × 5; sporidiis ellipticis, fuscis, uniseriatis, 6–7 × 3–3 ½.

Hab. in ligno emortuo in Nicaragua (Smith).

3. **Hypoxylon rubellum** Penz. et Sacc. Malpighia XI, 1897, p. 491. 1931
— Peritheciis globulosis, vix 0,5 mm. diam., non v. obtuse papillatis, in cæspitulos pulvinato-hemisphæricos, 2–3 mm. diam., densiuscule collectis, botryosis, lateritiis, initio rubro-furfuraceis; ascis cylindraceis, apice rotundatis, 120 × 10-12, octosporis; sporidiis oblique monostichis, 20-24 × 8-9, elliptico-fusoideis, utrinque acutulis, 1-nucleatis, fuligineis.

Hab. in culmis putridis, Tjibodas, ins. Java. — Affine *H. argillaceo* (Pers.) Berk., a quo differt acervulis multo minoribus, furfure rubro, ascis brevioribus etc.

4. **Hypoxylon microstroma** Penz. et Sacc. Malpighia XI, 1897, p. 491. 1932
— Peritheciis paucis (2–6), globulosis, ¼-⅕ mm. d., tenui-carbonaceis, obtuse papillatis, nigris, in stromata minuta sphæroidea, dense gregaria, basi coarctatâ sessilia, atra, rugulosa, 1 mm. lata congestis; ascis (jam elapsis); sporidiis oblongo-ellipsoideis, utrinque obtusulis, 2-guttatis, 8–9 × 4–5, dilute fuligineis.

Hab. in superficie late nigrificata lignorum, Tjibodas, ins. Java. — Affine videtur *H. pauxillo* Ces., cujus sporidia ignota et quod recedit peritheciis intus albidis, stromate nitente etc.

5. **Hypoxylon ochraceum** P. Henn. Hedw. 1897, p. 228. — Stroma- 1933
tibus per corticem erumpentibus, dein superficialibus, subpulvinatis, orbicularibus vel oblongis, sæpe confluentibus, sublateritiis, dein ochraceis, tuberculatis, pruinosis, 2-4 mm. diametro; peritheciis subglobosis; ascis clavatis, 8-sporis, 8-9 μ. crassis, apice

obtusis; sporidiis fuscis, dein atris, oblongis, biguttulatis, 15–18 × 7–9.

Hab. in ramis emortuis pr. Blumenau Brasiliæ (Moeller).

6. **Hypoxylon ferrugineum** Otth, Bern. Mittheil. 1868, p. 41. — Pulvinatum immarginatum, globoso-depressum v. irregulariter plus minus elongatum, superficiale, extus ferrugineum, grumosum, intus obscurius; peritheciis prominulis, ostiolis minutissime papillatis; ascis cylindricis, 8-sporis, pedicellatis; sporidiis monostichis, late fusoideis, inæquilateralibus, 13 × 7, nigricantibus; paraphysibus filiformibus tenerrimis. 1934

Hab. in ramis emortuis Tiliæ, Bern Helvetiæ.

7. **Hypoxylon lucidum** Ell. et Ev. Bull. Labor. Nat. Hist. Univ. IV, 1896, p. 72. — Effusum subpulvinatum, 2 v. 3 cm. longum, 1 ½ cm. latum, atrum, nitidum; peritheciis oblongo-cylindraceis, 1 ½ × ¾ mm. dense dispositis, ostiolis conico-hemisphæricis, subsulcatis, stromatis superficiem asperantibus; ascis cylindraceis, breviter stipitatis, paraphysatis, 75-85 × 7-8, octosporis; sporidiis oblique monostichis, inæquilateraliter oblongo-ellipticis, dein opacis, 12–14 × 6-7. 1935

Hab. in ligno emortuo in Nicaragua (Smith).

8. **Hypoxylon microcarpum** Penz. et Sacc. Malpighia XI, 1897, p. 492. — Peritheciis in plagulas versiformes, 1-2 centim. long., applanatas, aterrimas densissime congestis, minutis, vix 0,25 mm. d., globosis, areola minuta sed distincta, centro obtuse papillatâ præditis; ascis cylindraceis, 80 × 5-6; sporidiis monostichis, ovato-ellipsoideis, inæquilateris, 7-9 × 4, fuligineis. 1936

Hab. in corticibus superficie atratis emortuis, Tjibodas, ins. Java. — Ab affini *H. effuso* Nits. differt peritheciis conspicue minoribus et sporidiis paullo majoribus. Species *Hypoxyli* areolato-impressæ seriem constituunt, quæ a majori *H. discophoro* per *marginatum, annulatum, chalybæum, polyspermum, Michelianum, subeffusum, Archeri, effusum* pervenit ad pusillum hoc *H. microcarpum*. Observandum quod *H. effusum* apud Sacc. Myc. Malac. p. 20 sit *H. subeffusum* Speg. (sec. exempl. orig.), nec species quam sæpe in Europa legimus. *H. marginatum* in H. W. Ravenel F. Amer. exsicc. n. 346 et 347 est nostrum *H. microcarpum*.

9. **Hypoxylon discophorum** Penz. et Sacc. Malpighia XI, 1897, p. 492. — Peritheciis in acervulos pulvinatos 5–15 mm. latos, basi coarctatâ superficiales densissime congestis, globoso-depressis, magnis, usque 2 mm. diam., nigris, carbonaceis, pachydermis, areola plana 1937

marginata circulari, nitidula, usque 1 mm. diam., medio obtusule papillata instructis; ascis (jam elapsis); sporidiis ellipsoideis, e latere reniformibus, 9-11 × 5,5-6, e latere 4 μ. cr., fuligineis.

Hab. in corticibus emortuis, Tjibodas, ins. Java. — Species eximia, *H. chalybæo* B. et Br. (= *Rosellinia nitens* Ces. ex p.) affinis, sed perithecio areolaque duplo latioribus mox distinguenda.

10. **Hypoxylon vernicosum** Ell. et Ev. Americ. Natur. 1897, p. 426. — 1938
Stromatibus pulvinatis, 2-3 × 1 cm., 3-4 mm. crassis, nigris, extus vernicosis, depressione annulari ut in *Hypoxyl. marginato* cinctis, ostiolis papilliformibus; peritheciis cylindraceis, $^1/_3$ mm. diam., strato stromatico profunde immersis; ascis cylindraceis, 75-80 × 4, breve stipitatis, octosporis; sporidiis oblongo-ellipticis, 6-7 × 3-3 $^1/_2$.

Hab. in ligno emortuo in Ohio, Amer. bor. (Morgan). — Omnino *Hypoxylon marginatum* in memoriam revocat, a quo stromatibus vernicosis et peritheciis cylindraceis diversum.

11. **Hypoxylon Eriodendri** P. Henn. Fungi camerun. I, in Engl. 1939
Jahrb. XXII, 1895, p. 78. — Stromatibus irregulare formatis, pulvinatis, subtuberculatis, ex brunneo atris, subcarbonaceis, extus rimoso-rugulosis, corticatis, intus pallidioribus; peritheciis ovoideis v. oblongis, circiter 1 $^1/_2$-2 × 1-1 $^1/_2$ mm. diam., ostiolo verrucoso, nigro; ascis cylindraceis, octosporis?; sporidiis oblique monostichis, oblongis v. ellipsoideis, plus minus inæquilateralibus, apicibus obtusis, rarius obtusiusculis, 35-70 × 20-32.

Hab. in ramis emortuis Eriodendri anfractuosi, Kamerun (Jungner).

12. **Hypoxylon californicum** Ell. et Ev. Proc. Acad. Philad. 1895, p. 426. 1940
— Stromatibus interrupte effusis, continuis 2-4 cm. longis v. suborbicularibus, $^1/_2$-1 cm. diam., circiter 1 mm. crassis, abrupte marginatis, ferrugineis; peritheciis monostichis, ovatis, $^1/_2$-$^1/_3$ mm., apice subprominentibus, ostiolo minuto, papilliformi, demum perforato; ascis cylindraceis, longiuscule stipitatis, octosporis, p. sp. 90-110 × 7-8; paraphysibus numerosis; sporidiis monostichis, oblongo-navicularibus, 14-18 × 6-7, primitus luteolis, crasse 1-guttulatis, demum opacis.

Hab. in ramis Adenostyli fasciculati, California (Mc Clatchie). — *H. rubginoso* proximum, sed sporidiis majoribus diversum.

13. **Hypoxylon bambusicolum** Speg.-Sacc. Syll. IX, pag. 1032 (sub 1941
Auerswaldia). — Var. **Chusqueæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 223. — Crustaceo-effusum, tenue, atrum, 0,5 cm. diam. suborbiculare, convexum, pruina alba sæpe conspersum; peritheciis

stromate immersis, globosis, minutis, papillato-ostiolatis; ascis octosporis, 150 × 12; sporidiis ellipticis, navicularibus, 2-guttulatis, brunneis, 25-30 × 10.

Hab. in truncis emortuis Chusqueæ in Æquat. (v. Lagerheim).

KRETZSCHMARIA Fr. — Syll. IX, p. 565, XI, p. 287.

1. **Kretzschmaria gomphoidea** Penz. et Sacc. Malpighia XI, 1897, p. 493. — Stromatibus in hypostromate effuso superficiali scoriaceo nigro densissime confertis, obconico-claviformibus, apice dilatato convexo-planis, breve sensim stipitatis, 3-4 mm. lat. et alt. (cum stipite), verruculosis, opace nigris, carbonaceis, intus albidis; peritheciis 10-20 in disco stromatis immersis, monostichis, 0,4-0,5 mm. d., ostiolis punctiformi-prominulis; ascis cylindraceis, apice rotundatis, longiuscule stipitatis, 60 × 5-6 p. sp., octosporis, paraphysatis; sporidiis oblique v. recte monostichis, ellipsoideis, inæquilateris, 8-10 × 5-6, fuligineis. 1942

Hab. in corticibus emortuis, Tjibodas, ins. Java. — Ab affinibus *K. Clavo* et *K. angolensi* differt peritheciis in quoque stromate magis numerosis, a *K. Clavo* præterea sporidiis multo minoribus (nec 40 × 10). Stromata, e mutua pressione interdum subangulosa, clavulos bene imitantur.

2. **Kretzschmaria spinifera** Ell. et Macbr. Bull. Labor. Nat. Hist. Univ. Jowa IV, 1896, p. 71. — Stromatibus oblongo-ovatis, 3-6 mm. longis latisque, 4-6 mm. altis, superficialibus, confertis, e mutua pressione subangulosis, non confluentibus, asperulis, atris, carbonaceis, supra rotundatis, *Hypoxylo cohærenti* valde affinibus; peritheciis 1-3 in quoque stromate, $1^1/_2$ mm. diam., globosis; ostiolis initio papillosis, dein elongatis, breve cylindraceis; ascis non visis; sporidiis latis, naviculari-fusoideis, continuis, opacis, compressis, 25-35 × 10-12, plerumque medio angustatis. 1943

Hab. in ligno vetusto, Mexico (Smith). — *K. cænopo* (Mont.) affinis, at differt ostiolis prolongatis et sporidiis maioribus. Stromata quoque sessilia occurrunt, basi crusta substromatica connexa.

3. **Kretzschmaria sessilis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 223. — Stromatibus dense gregariis, crusta atra late effusa insidentibus, subglobosis, sessilibus, 2-3 mm. latis, atris, rugosis, fragilibus, intus albis; peritheciis paucis, globosis, fusco-atris, prominulis; sporidiis inæquilateralibus, continuis, fusco-brunneis, 11-13 × 5-6, ellipticis, utrinque obtusis. 1944

Hab. in truncis putridis in Æquatoria (v. Lagerheim).

PENZIGIA Sacc. — Syll. IX, p. 567.

1. **Penzigia macrospora** Penz. et Sacc. Malpighia XI, 1897, p. 494 — Stromatibus hemisphærico-depressis, breve stipitatis vel puncto centrali stipitiformi affixis, integris v. sæpius varie lobatis et superne undulatis, carbonaceis, extus pellicula flavido-alba tectis, intus sub cortice nigro albidis, compactis, 4-10 mm. diam., stipite 1-2 mm. long., latente; peritheciis monostichis, globulosis, nigris, 0,7 mm. diam., ostiolo punctiformi, nigro non emergente; ascis cylindraceis, apice rotundatis, breve crasseque stipitatis, 180-200 × 26-28, octosporis; sporidiis monostichis, crasse ellipsoideis, utrinque obtusulis, 30-35 × 18-20, atro-fuligineis.

Hab. in corticibus emortuis, Tjibodas, ins. Java. — Eximia species, forma et magnitudine stromatis sporidiorumque facile dignoscenda. Perithecia in quoque stromate 60-80 et plura.

NUMMULARIA Tul. — Syll. I, p. 395, IX, p. 569, XI, p. 288.

1. **Nummularia uni-apiculata** Penz. et Sacc. Malpighia XI, 1897 p. 494. — Stromatibus subcutaneo-erumpentibus, applanatis, 3-5 cm. long. (*Diatrypen Stigma* imitantibus), intus et extus nigris, ob ostiola minutissima, crebriuscula, vix emergentia punctulatis, ambitu peridermio rupto cinctis; peritheciis monostichis, globosis, $^1/_4$ mm. diam.; ascis cylindraceis, apice rotundatis, 100-110 × 7-8, breviter stipitatis, octosporis; paraphysibus filiformibus, guttulatis; sporidiis monostichis, oblongo-ellipsoideis, apice obtusulis, fuligineis, 2-nucleatis, basi apiculo subtriangulari, hyalino, 3 × 3, auctis, 13-15 × 6 (cum apic.).

Hab. in corticibus emortuis, Tjibodas, ins. Java. — *Numm. subapiculatæ* Ell. et Ev. N. Am. Pyr., p. 625 affinis, differt peritheciis multo minoribus, non compressis, sporidiis basi tantum apiculatis etc.

2. **Nummularia minutula** Penz. et Sacc. Malpighia XI, 1897, p. 495 — Stromatibus plano-pulvinatis, suborbicularibus, carbonaceis, matrici adnatis et basi circum circa zonula stromatica angusta cinctis, intus et extus atro-nitidis, 1-1,5 mm. diam., superficie levissimis (ostiolis non conspicuis); peritheciis ovoideis, perexiguis, 100-150 μ. diam., monostichis, in quoque stromate numerosis (20-30); ascis jam resorptis; sporidiis fusoideo-ellipticis, obtusulis, 10 × 5, rectis, fuligineis.

Hab. in culmis emortuis Bambusæ, Tjibodas, ins. Java. — Affinis *N. pusillæ* Sacc. et *Hypoxylo microsporo* Ces. Et re vera

utrique generi proxima, sed stromatibus disciformibus, limitatis, levibus *Nummulariæ* affinior videtur.

3. **Nummularia albosticta** Ell. et Morg. Bull. Torr. Bot. Cl. 1897. 1948
p. 135. — Stromate effuso, tenui, 1 mm. crasso, 3-4 × 1 cm., plerumque margine tenui, erecto, schistaceo, lævi, sed ostiolis minutis, papilliformibus, albidis adsperso; peritheciis oblongis, 1 × $^1/_4$-$^1/_3$ mm., confertis; ascis cylindraceis, 130 × 8-9, stipitatis, paraphysatis; sporidiis uniseriatis, oblongo-ellipticis, subacutis, primo padidis, denique brunneis, 14-16 × 7-8.

Hab. in ligno vetusto Caryæ in Ohio Amer. bor. (Morgan).

Nummularia Mœlleriana P. Henn. Hedw. 1897, p. 228. — Stro- 1949
matibus ramicolis, explanatis, vix elevatis, cinereis, 10-15 mm. longis; peritheciis immersis, sphæroideis, atris; ascis cylindraceo-clavatis, obtusis, plus minus stipitatis, p. sporif. 30-40 × 3-4; sporidiis oblique monostichis, ellipsoideis, interdum inæquilateralibus, utrinque obtusis, 4 $^1/_2$-5 × 3 $^1/_2$-4, brunneo-atris.

Hab. in ramis pr. Blumenau Brasiliæ (Moeller).

5. **Nummularia ustulinoides** P. Henn. Hedw. 1897, p. 227. — Stro- 1950
matibus late effusis, convexis, carbonaceo-nigris, opacis, ad 5 cm. diametro, 1 cm. crassis, ostiolis verruciformibus; peritheciis immersis oblongis; ascis cylindraceis, 8-sporis, pedicellatis; sporidiis oblique monostichis, ellipsoideis vel ovoideis, utrinque obtusis, fusco-brunneis, dein atris, 4 $^1/_2$-5 $^1/_2$ × 3.

Hab. ad truncos pr. Blumenau Brasiliæ (Moeller).

6. **Nummularia hyalospora** Pat. Bull. Soc. bot. Fr. 1898, p. 56, 1951
t. VII, f. 5. — Stromate atro, orbiculari v. longe elliptico, erumpente, 2-10 cm. longo, applanato, vix sub lente punctulato, 1-2 mm. cr. margine sterili, contextu atro, carbonaceo; peritheciis erectis, densissime stipatis, ostiolo minuto donatis; sporidiis octonis, ellipsoideis, utrinque attenuatis, hyalinis v. pallidissime fuliginosis, intus guttulatis, 30 × 8.

Hab. ad ramos corticatos in Mexico (Maury). — Ab affini *N. Bulliardi* sporidiis multo majoribus et vix coloratis dignoscitur.

Nummularia cinnabarina P. Henn. Hedw. 1897, p. 227. — Stro- 1952
matibus suborbicularibus vel effusis, superficialibus, pulvinatis, planis, 2-3 $^1/_2$ cm. diametro, cinnabarinis, farinosis, intus subatris, margine tenuibus, concoloribus, ostiolis verruciformibus, dein atris, nitentibus; peritheciis subglobosis; ascis cylindraceis, 8-sporis, pedicellatis p. sporif. 50-60 × 5-6, pedicello hyalino, 30-45 × 4-5; sporidiis

monostichis, ellipsoideis vel ovoideis, fusco-brunneis, dein atris, 2-guttulatis, 8-10 × 4-5.

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Möller). — *Nummulariæ lateritiæ* Ell. et Ev. proxima.

PYRENOMYXA Morg. Journ. Cinc. Soc. Nat. Hist. XVIII, 1895, p. 42. (Etym. *Pyrenomyces* habitu *Myxomycetis*). — Stromata superficialia, pulvinata, carbonacea, superne cellulas stipatas, cylmuraceas monostichas tenui-membranaceas, late inæqualiter apertas ferentia. Asci (jam resorpti?). Sporidia allantoideo-navicularia, continua, brunnea.

1. **Pyrenomyxa invocans** Morg. l. c. t. II, fig. 15. — Stromatibus 1953
pulvinatis, plus minus elongatis, irregularibus, 2-3 cm. longis, cm. crassis, intus nigris, extus ochraceis, superne cellulas magnas, confluentes, gregarias, compressas, tenui-membranaceas, margine crenulatas ferentibus; sporidiis brunneis, allantoideo-navicularibus, tenuibus, 12-15 × 4-6.

Hab. in ligno indurato Caryæ, Ohio Amer. bor. — An forma abnormis?

Sect. 3. Hyalosporæ.

CERATOSTOMELLA Sacc. — Syll. I, p. 408, IX, p. 573, XI, p. 289.

1. **Ceratostomella polyrrhyncha** Penz. et Sacc. Malpighia XI, 1897, 1954
p. 408. — Peritheciis laxe gregariis, superficialibus, globulosis, 160-200 μ. diam., nigris, glabris, demum sæpe collabascendo supra umbilicatis, ostiolis subternis in quoque perithecio, filiformibus, sursum divergentibus, perithecio triplo longioribus; ascis fusoideo-oblongis, sessilibus, apice rotundatis, 60-65 × 10-12, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, oblongo-ellipsoideis, rectis v. curvulis, intus granulosis v. binucleatis, 15-18 × 5-6, hyalinis.

Hab. in cortice putrescente Elettariæ, Tjibodas, Java. — Perithecii contextus parenchymaticus, castaneo-fuligineus, ostioli prosenchymaticus, nigricans. A *C. multirostrata* differt ostiolis longioribus, peritheciis minoribus, ascis sporidiisque majoribus.

2. **Ceratostomella excelsior** Mout. Compt. rend. Bull. Soc. Roy. 1955
Bot. Belg. XXXVI, 1897, 2 part. p. 12. — Peritheciis immersis, globosis, $^1/_3$ mm. atris, glabris, collo cylindrico, rigido, glabro, recto v. plus minus flexuoso, 0,6-1 mm. × 80 μ.; ascis oblongo-cylindraceis, apice truncatis, filiforme stipitatis, 8-sporis, 70 (p. sp. 55) × 10;

sporidiis biseriatis, oblongis, obtusis, rectis v. leniter curvulis, 2-4 (vulgo 3)-guttulatis, 14-17 × 4.

Hab. in ligno putrescente Fraxini pr. Liège Belgii.

LÆSTADIA Auesrw. *) — Syll. I, p. 420, IX, p. 577, XI, p. 289.

1. **Læstadia rubicola** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 129. 1956
— Peritheciis dense sparsis, subcuticularibus, depresso-hemisphæricis, collapsis, ostiolo papilliformi apice late perforatis; ascis clavato-cylindraceis, stipitatis, p. sp. 60 × 7-8, utrinque angustatis acutisque; paraphysibus obscuris, ascis brevioribus; sporidiis biseriatis, oblongo-ellipticis, hyalinis, biguttulatis, utrinque obtuso-rotundatis, 12-14 × 5-6.

Hab. in caulibus emortuis Rubi strigosi in Canada (Dearness).

2. **Læstadia Calycotomes** Roll. Bull. Soc. Myc. de Fr. 1896, p. 3, 1957
tab. II, fig. 3. — Peritheciis corticolis, nigris, numerosis, amphigenis, globosis, membranaceis, epidermide velatis, dein erumpentibus, ore irregulari pertusis, nucleo albo donatis, circiter $^1/_4$ mm. latis; ascis aparaphysatis, fasciculatis, clavato-subfusiformibus, breve stipitatis, crassis, præcipue ad verticem, 8-sporis, 80-100 × 20; sporidiis hyalinis, irregulariter ellipticis, subdistichis, varie guttatis, 17-22 × 6-7.

Hab. in ramulis siccis Calycotomes spinosæ, Golfe Juan Galliæ.

3. **Læstadia Cæsalpiniæ** Pat. Ann. Jard. Buitenzorg 1897, p. 121. 1958
— Maculis epiphyllis minutis, pallidis; peritheciis gregariis, globosis, atris, 200 μ. diam., poro pertusis; ascis fusiformibus utrinque attenuatis, 80-100 × 13-18, octosporis, aparaphysatis; sporidiis monostichis, ovoideis, simplicibus, hyalinis, 10-12 × 8.

Hab. in foliolis Cæsalpiniæ spec. in insula Java.

4. **Læstadia astragalina** Rehm in Ascomycetes exs. fasc. XXIV, 1959
n. 1246, Hedw. 1898, p, (144). — Peritheciis in maculis foliorum fuscidulis exsiccatisque gregariis, sessilibus, semiglobosis, dimidiatis, poro pertusis, mollibus, parenchymatice rubro-fusco contextis, 200 μ. diam; ascis clavatis, octosporis, 66 × 16, aparaphysatis; sporidiis distichis, oblongis, obtusis, unicellularibus, guttulas oleosas duas minutissimas continentibus, hyalinis, 12-15 × 7.

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*) Quod ad nomen *Læstadiæ* pertinet cfr. Syll. fung. XI, p. 289 (nota). Rationibus datis etiam nomen *Guignardia* Viala et Rav. (1892) superfluum evadit.

Hab. ad folia Astragali Ciceris pr. Jena Germaniæ (Staritz).

5. **Læstadia illiciicola** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 176. — Maculis amphigenis magnis, irregularibus, subbrunneis, subaridis, definite limitatis, plerumque apicem foliorum involventibus; peritheciis numerosissimis, sparsis, erumpentibus, nigris, membranaceis, suborbicularibus v. lenticularibus, obscure ostiolatis, demum collabentibus; ascis aparaphysatis, clavatis, stipitatis, apice incrassatis, 40-50 × 10-12; sporidiis ovoideis v. fusiformibus, continuis, hyalinis, granulosis, circiter 15 × 5. 1960

Hab. in foliis vivis Illicii floridani, Mississippi, Amer. bor. 1961

6. **Læstadia tunetana** Pat. Enum. Champ. Tunisie, 1892, pag. 12. — Peritheciis minutis, 160-200 μ. diam., globosis, subepidermicis, dein prominentibus, seriatim dispositis; ostiolo papilliformi; ascis claviformibus, apice obtusis, basi in stipitem brevem attenuatis, 90-100 × 15-20, octosporis; paraphysibus nullis; sporidiis distichis, hyalinis, simplicibus, ovali-elongatis, 20-22 × 5-7.

Hab. in caulibus siccis Umbelliferarum in Tunisia.

7. **Læstadia Staphyleæ** Hazsl. Math. es term. Közlem. Budapest. 1892, p. 118. — Peritheciis subcutaneo-erumpentibus, subcarbonaceis, superficie tuberculatis v. valde asperatis; ascis ovato-oblongis, aparaphysatis; sporidiis ovoideis 8-10 μ. longis. 1962

Hab. in ramulis junioribus Staphyleæ pinnatæ, quos destruit, in hortis Eperies Hungaria.

8. **Læstadia allantospora** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 116, t. VII, f. 28. — Peritheciis gregariis, in epidermide nidulantibus, conico-hemisphæricis emergentibus, poro terminali dehiscentibus, nudis; ascis cylindricis, subsessilibus, 40 × 10 intermixtis, ascis clavatis in basim brevem attenuatis, omnibus 8-sporis; sporidiis biseriatis, allantoideis i. e. cylindricis, curvatis, obtusis, hyalinis, 12-16 × 3-4. 1963

Hab. in caulibus emortuis Scabiosæ ochroleucæ in Hungaria.

9. **Læstadia Scrophulariæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 129. — Peritheciis sparsis, subcuticularibus, 100-130 μ. diam. per epidermidem leviter elevatam conspicuis; ascis clavato-cylindraceis, 35-40 (p. sp. 25-30) × 6 7; sporidiis distichis, oblongis, obtusis, nucleatis, continuis, hyalinis, 9-12 × 3-3 $^1/_2$. 1964

Hab. in caulibus emortuis Scrophulariæ, Canada Amer. bor. (Dearness).

10. **Læstadia coffeicola** Speg. Rev. Agr. y Veter. La Plata, 1896, p. 345. — Maculis amphigenis, orbicularibus, majusculis, 5-15, mm. diam., eximie limitatis ex arescente albis; peritheciis epiphyllis, parenchymate immersis, globoso-depressis, 80-100 μ. diam., irregulariter sparsis, parum perspicuis, glabris, atris, membranaceis, contextu sinuoso-parenchymatico; ascis cylindraceis v. subclavulatis 45 × 10, aparaphysatis, deorsum breviter attenuato-pedicellatis, 8-sporis; sporidiis distichis, obovatis, leniter inæquilateralibus, utrinque obtusiusculis, 10-14 × 4-6, continuis, hyalinis. 1965

Hab. in foliis languidis Coffeæ arabicæ, Costa-Rica.

11. **Læstadia Cerberæ** F. Tassi, Atti R. Acc. dei fisiocr. Siena, IV ser. VIII, 1896, (Microm. III, pag. 3) et Rev. Mycol. 1896, p. 157, tab. CLXVI, fig. 1. — Peritheciis epiphyllis sparsis, epidermide velatis, globoso-depressis, apice anguste pertusis, 100-125 diam., contextu fuligineo; ascis cylindraceo-clavatis, breve attenuato-stipitatis, apice rotundatis, 40–50 × 10–16, aparaphysatis, octosporis; sporidiis distichis vel inordinatis, continuis, ovato-oblongis, endoplasmate granuloso farctis, hyalinis, 10–11 × 4-4,5. 1966

Hab. in foliis petiolisque exsiccatis Cerberæ venenuferæ in India occid.

12. **Læstadia Cephalariæ** (Awd.) Sacc. Syll. I p. 425. — var. **Alternantheræ** Sacc. Fl. mycol. Lus. p. 68. — Peritheciis 100-150 μ diam., poro pertusis, emergentibus atro-nitidulis; ascis clavulatis, 45-60 × 10-11; sporidiis distichis, oblongo-ellipsoideis, subinde inæquilateris, 12–15 × 5-6, guttulatis, hyalinis. 1967

Hab. in foliis languidis Alternantheræ sessilis, S. Thomé Afric. occid. (Moller).

13. **Læstadia lupulina** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 116, tab. VII, fig. 29. — Peritheciis minutissimis, globosis, dense aggregatis, zonas lineares in superficie caulium formantibus, solummodo ascis farctis; ascis obovato-clavatis, crassitudine maxima quadruplo longioribus; sporidiis ovalibus, 6 × 4. 1968

Hab. in caulibus emortuis Humuli Lupuli in Hungaria.

14. **Læstadia carpinea** (Fr.) Sacc. Syll. I, p. 426. — **var. salicina** Sacc. Malpighia XI, 1897, p. 45. — Peritheciis depressis; sporidiis 15-16 × 5-6. 1969

Hab. in foliis Salicis Lapponium et S. herbaceæ, Valsesia in Italia boreali.

15. **Læstadia linearis** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 158. — Maculis pallidis, 1-2 cm. diam., linea nigra circumda- 1970

tis; peritheciis in maculis sparsis vel 2-3 confluentibus, parenchymate immersis, globulosis, 300 μ., atris, nitidis, coriaceis, ostiolis hysterioideis, linearibus vel 3-radiatis; ascis aparaphysatis, claviformibus, 72-108 × 14-18, sessilibus, 8-sporis; sporidiis hyalino-viridulis, fusoideis, guttulatis, unicellularibus, 28-32 × 7 1/2, di-vel tristichis.

Hab. in foliis coriaceis siccis, Costa-Rica.

16. **Læstadia Traversi** Cav. Fung. Longob. V, n. 231. — Peritheciis 1971
dense gregariis sub epidermide nidulantibus, dein erumpentibus, depressis, patellaribus, ostiolo prominulo, cirro albo prædito; ascis cylindraceo-clavatis, 50 × 10-12; sporidiis ellipticis, hyalinis, nionostichis, 10 × 4; paraphysibus nullis.

Hab. in foliis Vanillæ planifoliæ in Italia.

17. **Læstadia Rehmii** Sacc. et Syd. Sic nominanda est *Læstadia Gentianæ* Rehm in Syll. XI, p. 290, quum exstet præcedens *L. Gentianæ* Br. et Har. in Syll. IX, p. 577.

18. **Læstadia Boyeri** Sacc. et Syd. Ita nuncupanda *L. Spartii* (Boy. et Jacz. [1894]) Sacc. Syll. XI, p. 290, extante homonyma Passerinii [1891].

PHOMATOSPORA Sacc. — Syll. I, p. 432, IX, p. 589, XI, p. 291.

1. **Phomatospora Maireana** Fautr. et Lamb. Rev. Mycol. 1897, p. 142. 1972
— Peritheciis minutis, numerosis, gregariis, tectis, membranaceis papillatis; ascis cylindraceis curvulis, deorsum attenuatis, aparaphysatis, 60 × 10; sporidiis hyalinis, simplicibus, ovalibus, monostichis, obliquis, 13-16 × 6.

Hab. in caulibus siccis Laserpitii gallici in Gallia.

2. **Phomatospora Libanotidis** Fautr. et Lamb. Rev. Mycol. 1897, 1973
p. 142. — Peritheciis numerosis minutis, laxe gregariis, epidermide tectis, nigris, sphæricis, membranaceis, areolatis, breve papillatis; ascis aparaphysatis, cylindraceis, rectis v. curvulis, basi attenuatis, apice rotundatis, 50 × 12; sporidiis hyalinis, simplicibus, fusoideis, obtusiusculis, 16 × 3-4.

Hab. in caulibus siccis Libanotidis montanæ in Gallia.

3. **Phomatospora Mapaniæ** F. Tassi, Atti R. Acc. dei Fisiocr. Siena, 1974
4 ser. VII[1] 1896, p. 5 et Rev. Mycol. 1896, p. 157, tab. CLXVI, fig. 2. — Peritheciis sparsis v. subgregariis, primo epidermide tectis, prominulis, dein denudatis, sphæroideis, siccitate collabentibus, nigris, pertusis, 1/3-1/2 mm. diam., contextu membranaceo, atro-fuligineo; ascis cylindraceis, 36-40 × 4-5, apice obtuse rotundatis,

basi breviter attenuatis, aparaphysatis; sporidiis monostichis, ellipsoideis, phomatoideis, continuis, 2-guttulatis, hyalinis 4-4 $^1/_2$ × 2 $^1/_2$. Spermagonium: Peritheciis ascophoris similibus, sed 100-150 μ. diam.; spermatiis ovatis v. ovato-oblongis, 2 × 1, 2-nucleatis, hyalinis.

Hab. in bracteis emortuis Mapaniæ humilis in horto botanico Senensi Italiæ. — Affinis *P. Berkeleyi* Sacc., sed differt præcipue ascis breviter attenuato-stipitatis ad basim, sed minore longitudine et latitudine.

PHYSALOSPORA Niessl — Syll. I, p. 433, IX, p. 591, XI, p. 291.

1. **Physalospora latitans** Sacc. Fl. mycol. Lus. p. 67. — Peritheciis 1975
amphigenis, gregariis, immersis, globulosis, nigris, $^1/_4$ mm. diam., latentibus, dein epidermidem lenissime pustulatim elevantibus, ostiolo depresso; ascis cylindraceis subsessilibus, 110-120 × 9, octosporis, apice obtuse conico intus bi-foveolato; paraphysibus brevibus, inæqualibus; sporidiis oblique monostichis, oblongo-ellipsoideis, sæpius inæquilateris, utrinque obtusulis, 18-21 × 8-8 $^1/_2$, hyalinis, nubiloso-guttulatis.

Hab. in foliis emortuis Eucalypti colosseæ, Coimbra Lusitaniæ (Moller). — Perithecii contextus laxiusculus, fusco-olivaceus. Asci lumen apice truncatum. A speciebus notis abunde diversa.

2. **Physalospora suberumpens** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 1976
p. 130. — Peritheciis gregariis, primo epidermide pustulato-elevata tectis, dein semierumpentibus, intus albis, $^1/_4$-$^1/_3$ mm. diam., apice erumpente conico-hemisphærico, ostiolo distincte papilliformi v. conico-papilliformi ornatis; ascis latis, clavato-cylindraceis, 80-100 × 18-20; sporidiis irregulariter confertis, ellipticis v. ovato-ellipticis, hyalinis, 18-21 × 9-11.

Hab. in cortice Eucalypti Globuli in California (Mc Clatchie).

3. **Physalospora ampelina** Hazsl. Math. es term. Közlem. XXV, 2, 1977
Budapest, 1892, p. 121, tab. VII, fig. 30. — Peritheciis hemisphæricis, ostiolo rotundo perforatis, sub epidermide nidulantibus, demum epidermidem perforantibus, solummodo ascis fasciculatim junctis et paucis paraphysibus filiformibus farctis; ascis ovato-oblongis, 8-sporis; sporidiis ovalibus 8 × 4-6.

Hab. in ramis emortuis Vitis viniferæ in Hungaria.

4. **Physalospora carpogena** Atk. Bull. Cornell Univ. III, n. 1, 1897, 1978

p. 8. — Peritheciis nigris, erumpentibus, non papillatis, 80-100 μ. diam.; ascis clavatis v. cylindraceis, 40-50 × 10-12, paraphysatis; sporidiis distichis, clavatis v. late fusoideis, inæquilateralibus, hyalinis, 12-14 × 3 $^1/_2$-4.

Hab. in fructibus Rubi villosi, Auburn, Alabama Amer. bor.

5. **Physalospora perversa** Rehm in Rabenhorst-Pazschke, Fungi europ. n. 4162. — Peritheciis innatis, gregariis, pagina folii superiore dilute flavide maculata et ab iis nigro-punctata, pagina inferiore haud decolorata, semiglobose prominentibus, papilla subconoidea plerumque instructis et poro minutissimo pertusis, nigris, glabris, demum radiatim rugulosis, subcarbonaceis, 400-500 μ. diam.; ascis cylindraceis apice rotundatis, 90 × 15, octosporis; sporidiis plerumque monostichis, oblongis, obtusis, unicellularibus, hyalinis, 12-14 × 6-8; paraphysibus ramosis, hyalinis. 1979

Hab. in foliis vivis Araliacearum spec. cujusd., San Francisco, Estado St. Catharina Brasiliæ (Ule). — Jodii ope asci non tinguntur.

6. **Physalospora Citharexyli** Rehm in Rabenhorst-Pazschke, Fungi europ. n. 4161. — Peritheciis gregariis, innatis in pagina superiore foliorum maculas efficientibus irregulariter subrotundas $^1/_2$-1 $^1/_2$ cm. latas, primitus fuscidulas, dein exalbatas et siccas, ipsis peritheciis nigro-punctatas, in pagina inferiore dilute fuscidulis prominentibus, ostiolis papilliformibus instructis, globosis, atris, glabris, 200-250 μ. diam., ascis oblongis, sessilibus, apice rotundatis, 75 × 12, octosporis; sporidiis distichis, ellipticis, unicellularibus, hyalinis 15 × 6; paraphysibus filiformibus, hyalinis, ca 3 μ. crassis. 1980

Hab. in foliis vivis Citharexyli spec., Sao Francisco, Estado Sta. Catharina Brasiliæ (Ule).

7. **Physalospora Everhartii** Sacc. et Syd. *Physalospora Corni* Ell. et Ev. Proc. Acad. Philad. 1895, p. 421. — Peritheciis dense sparsis, globosis, circiter 200 μ. diam., intus albis, epidermide in pustulas elevata, nigrificata et ostiolo papilliformi pertusa tectis; ascis clavato-cylindraceis, 70-90 × 11-13, breve stipitatis, aparaphysatis; sporidiis distichis, naviculari-fusoideis, continuis, hyalinis, lenissime curvulis, 20-26 × 4-5, passim 20-26 × 6-8. 1981

Hab. in ramis emortuis Corni, Colorado, Amer. bor. — Teste ipso auctore, a *Ph. Corni* Sacc. vix differt sporidiis paullo majoribus. Specimina a cl. Macoun in Canada lecta præbent sporidia latiora (6-8 μ.) et ascos obscure paraphysatos (Cfr. Bull. Torr. Bot. Cl. 1898, p. 514).

8. **Physalospora Molluginis** (Otth) Sacc. Hedw. 1896, p. XXVII. 1982
Stigmatea Molluginis Otth, Bern. Mittheil. 1868, p. 57. — Hypophylla et caulicola; peritheciis compluribus aggregatis, tenuibus, mollibus, depressis, innatis, epidermide atrata et pustulata tectis, demum collapsis; ostiolo inconspicuo; nucleo cinereo, lentiformi; ascis clavatis, erectis, convergentibus, octosporis; sporidiis hyalinis, minutis, oblongis, 10 × 2,5, utrinque attenuatis, 2-guttatis; paraphysibus linearibus ascos æquantibus

Hab. in foliis caulibusque Galii Molluginis p. Bernam in Helvetia.

9. **Physalospora betulina** Ell. et Ev. Americ. Natur. 1897, p. 341. 1983
— Peritheciis subgregariis, cortice immersis, sed apicibus epidermidem in pustulas elevantibus, ovato-globosis, 400-500 μ. diam., intus dilute tinctis; ostiolo inconspicuo; ascis clavato-cylindraceis, 110 × 12, paraphysibus numerosissimis; sporidiis monostichis, ellipticis v. obovatis, hyalinis, majuscule 1 vel 2 nucleatis, 18-22 × 10-12.

Hab. in cortice Betulæ Newfoundland Amer. bor. (Wᴀghorne).

10. **Physalospora camptospora** Sacc. Bull. Soc. Roy. Bot. Belg. XXXV, 1984
1896, p. 127, tab. III, fig. 1. — Peritheciis laxe gregariis v. hinc inde confertis, subcutaneo-erumpentibus, prominulis, globoso-inæqualibus, 200-300 μ. diam., ostiolo obtuso sæpe irregulari pertusis, contextu minute celluloso fuligineo; ascis cylindraceis, breve stipitatis, spurie paraphysatis, apice obtusis, lumine initio obsolete bifoveolato, octosporis; sporidiis distichis, cylindraceo-oblongis, plus minus arcuatis, utrinque rotundatis, 20-24 × 4-5, continuis, farctis, hyalinis, plasmate sæpe imperfecte bipartito.

Hab. in foliis emortuis Orchidearum epiphytarum in Brasilia (P. Bɪnot). — Affinis *P. fusisporæ* aliisque sed sporidiis curvis etc. diversa.

11. **Physalospora Wildemaniana** Sacc. Bull. Soc. Roy. Bot. Belg. 1985
XXXV, 1896, p. 128, tab. III, fig. 2. — Peritheciis hypophyllis, hinc inde dense gregariis, epidermide tectis, globoso-lenticularibus, 0,3 mm. diam., nigris, ostiolo impresso pertusis, dein concavis, contextus cellulis amplis sinuosis subradiatim dispositis; ascis teretifusoideis, 50-60 × 8-9, subsessilibus, apice obtusulis, octosporis; paraphysibus flexuosis, paucis evanidis; sporidiis oblique monostichis v. distichis, breve fusoideis, utrinque acutulis, subrectis, 15-16 × 5, hyalinis.

Hab. in foliis emortuis Orchidearum epiphytarum in Brasilia. — Affinis *Ph. fallaciosæ* aliisque sed satis distincta videtur

12. **Physalospora tucumanensis** Speg. Rev. Agr. y Veter La Plata, 1936
1896, p. 228. — Maculis nullis v. toto folio arescenti-pallescente; peritheciis hypophyllis, laxe gregariis, sæpius seriatis, globosis, parvulis, 110-130 μ. diam., glabris, immersis, epidermide tectis eisque subadnatis, ostiolo vix papillato-coriaceis, contextu subopaco parenchymatico olivaceo donatis; ascis subclavatis, antice rotundatis, postice breviter cuneato-pedicellatis, 80-90 × 18, octosporis, paraphysibus filiformibus obvallatis; sporidiis oblique distichis, ellipsoideis, sæpius tenuiter inæquilateralibus, in juventute sæpe grosse 1-guttulatis, utrinque obtusiusculis, 18-22 × 8-10, continuis, hyalinis, levibus

Hab. in vaginis vetustis vel foliis languidis Sacchari officinarum, prov. Tucuman, Argentina

UROSPORELLA Atk. Bull Cornell Univ. III, n. 1, 1897, p. 99
Etym. ab *Urospora*, cui affinis). — Characteribus *Urosporæ*, sed sporidiis utrinque flagello longo, gracili, ciliiformi, flexuoso ornatis.

1. **Urosporella americana** Atk. l. c. p. 10. — Peritheciis immersis 1967
nigris, prominulis, epidermidem valde elevantibus, globosis, plerumque ostiolo brevissimo minuto papillato ornatis, apice erumpentibus, 250-300 μ. diam.; ascis cylindraceis, stipitatis, 70-80 × 7-9, aparaphysatis; sporidiis octonis, ellipticis, inæquilateralibus, hyalinis, utrinque flagello gracillimo, hyalino, flexuoso, ciliiformi munitis, 12 × 5-7, ciliis 7-10 × $^1/_2$.

Hab. in caulibus plantæ herbaceæ cujusdam, Auburn, Alabama Amer. bor.

DITOPELLA De Not. — Syll. I, p. 450, IX, p. 602

1. **Ditopella Populi** Schroet. Kryptog.-Flora v. Schlesien, 1897, p. 387. 1988
— Peritheciis gregariis, immersis, subconfertis, globosis, circiter 0,4 mm latis, epiphyllis, erumpentibus, poro cylindraceo-acuto usque 4 mm. longo, pertusis, nigris; ascis fusiformibus, 110 × 11, polysporis; sporidiis polystichis fusiformi-bacillaribus, utrinque attenuatis, obtusis, 20-25 × 3 $^1/_2$-4 $^1/_2$, unicellularibus, hyalinis.

Hab. in foliis putrescentibus Populi incanæ in Silesia.

TRICHOSPHÆRIA Fuck. — Syll. I, p. 452, IX, p. 602, XI, p. 293.

1. **Trichosphæria affinis** Penz. et Sacc. Malpighia XI, 1897, p. 391. 1939
— Peritheciis laxe gregariis, superficialibus, globoso-conoideis, 0,3-0,4 mm. diam., tenuiter carbonaceis, nigris, hirtis; setulis ra

riusculis, rigidulis, rectis, acutis, septatis, fuligineo-atris, 150-250 × 8; ascis cylindraceis, breve stipitatis, apice rotundatis, 74 × 6-7, octosporis; paraphysibus filiformibus, guttulatis; sporidiis monostichis, ellipsoideis, 10-12 × 6, crasse biguttatis, hyalinis.

Hab. in petiolis emortuis Palmarum, Java. — Affinis videtur *T. nobili* Sacc. et *T. Anselliæ* E. March.

2. **Trichosphæria proxima** Penz. et Sacc. Malpighia XI, 1897, p. 391. 1990
— Peritheciis gregariis, globoso-conoideis, nigris, carbonaceis, 0,7 mm. diam., hirtis; setulis crebris, filiformibus, rectiusculis, septatis, atro-fuligineis, 350-400 × 7-8; ascis cylindraceis, breve stipitatis, apice rotundatis, 86-90 × 8-9, octosporis; paraphysibus filiformibus, brevibus (resorptis?); sporidiis ellipsoideis, 12 × 7, oblique monostichis, intus granulosis, hyalinis.

Hab. ad ramos putres, Java.

3. **Trichosphæria Sacchari** Massee Sacc. Syll. XI, p. 294. — Sec. Massee stat. conid. est *Melanconii* species, quæ sec. Prillieux et Delacroix est *Coniothyrium melasporum* (Berk.) Sacc. cfr. Bull. Soc. Myc. 1895, p. 80, tab. X; sed reapse perithecium abesse videtur, hinc species aptius *Mel. melasporum* esset dicenda.

WALLROTHIELLA Sacc. — Syll. I, p. 455, IX, p. 605, XI, p. 294.

1. **Wallrothiella conferta** Sacc. et Flag. Bull. Soc. Myc. de Fr. 1896, 1991
p. 64, tab. V, fig. 1. — Confertissima, maculas piceas latas formans; peritheciis superficialibus, globosis, papillatis, 130-150 μ. diam., nigris, nitidulis, glabris, carbonaceis; ascis cylindricis, subsessilibus, apice rotundatis, 40 × 3-4, pseudoparaphysatis; sporidiis oblongo-ellipsoideis, oblique monostichis, 6-7 × $2^1/_2$, obsolete 2-guttatis, hyalinis.

Hab. in ligno emortuo decorticato Tamaricis anglicæ pr. Rigny Galliæ (Flageolet). — A *W. minima* differt peritheciis omnino glabris, nitidis, a *W. parvula* ascis cylindricis, sporidiis monostichis.

BOTRYOSPHÆRIA Ces. et De Not. — Syll. I, p. 456, IX, p. 605, XI, p. 295.

1. **Botryosphæria Dothidea** (Moug. et Fr.) Ces. et De Not.-Sacc. Syll. I, 1992
p. 460. — Var. **pluriguttata** Brun. Bull. Soc. Sc. Nat. Nantes 1893, p. 217. — Sporidiis amygdaloideis, apice rotundatis, interdum leniter constrictis, hyalinis, 4-10 guttulis monostiche dispositis donatis, non granulosis, 20-22 × 7-10.

Hab. in ramis emortuis Rosæ caninæ et R. arvensis, Saintes Galliæ.

2. **Botryosphæria palmigena** (Berk. et Cke.) Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 158; *Hypoxylon palmigena* B. et C. Cuban Fg. n. 32, Sacc. Syll. I, p. 81. — Stromatibus epiphyllis, superficialibus, subglobosis, nigris; ascis biformibus, aliis subcylindraceis, 100 × 18, 8-sporis, aliis oblongis, 63-30, 4-5-sporis; sporidiis oblique monostichis v. distichis, hyalinis, nubilosis, late fusoideis, biguttulatis, 25,2 × 14,4; paraphysibus flexuosis, numerosis, simplicibus, granulosis. 1993

Hab. in foliis Chamædoreæ in Costa-Rica.

3. **Botryosphæria phyllachoroidea** Penz. et Sacc. Malpighia XI, 1897, p. 530. — Peritheciis epiphyllis, subsuperficialibus, in soros dense et late gregarios minutos collectis, globoso-conicis, obtuse papillatis, nigris, levibus, glabris, 100 μ. lat.; ascis oblongo-fusoideis, 45 × 10-11, sessilibus, obtusis, octosporis, filiformi-paraphysatis, muco copioso obductis; sporidiis 1-2-stichis, subinde horizontaliter positis, ovoideis, 10 × 6,5, hyalinis. 1994

Hab. in pag. sup. foliorum coriaceorum adhuc viventium in Horto Bot. Bogoriensi, ins. Java. — Habitus *Phyllachoræ*.

CRYPTOSPORELLA Sacc. — Syll. I, p. 466, IX, p. 609.

1. **Cryptosporella** (*Flageoletia*) **leptasca** (P. et C.) Sacc. — Syll. 1, p. 469. 1995

***C. tenuis** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 64, tab. V, fig. 2. — Ascis anguste cylindricis, parte sporif. 70-75 × 5, apice rotundatis, pseudoparaphysatis, stipite filiformi, 40-45 × 0,5; sporidiis rectis, monostichis, ellipsoideis, 7-8 × 3 1/2, hyalinis, grosse guttatis initio, ut videtur, isthmo plasmatico inter se connexis.

Hab. in ramis corticatis Coryli Avellanæ pr. Rigny Galliæ (Flageolet). — A typo præcipue differt ascis longe stipitatis. — Subgenus *Plageoletia* (præclaro collectori mycologo dicatum) sistit species *Cryptosporellæ* ascis cylindricis, longe stipitatis, sporidiis monostichis, minutis.

Sect. 4. Hyalodidymæ.

SPHÆRELLA Ces. et De Not. — Syll. I, p. 476, IX, p. 611, XI, p. 295.

1. **Sphærella fusispora** Fckl.-Syll. IX, p. 611. — var. **groenlandica** Allesch. in Allescher et P. Hennings, Pilze aus dem Umanakdi- 1996

strikt, 1897, p. 7. — Sporidiis distichis, dein monostichis, oblongis, septatis, loculo superiore amplore, hyalinis, ca. 20-24 × 4-5.

Hab. in foliis languescentibus Ranunculi nivalis pr. Sermiarsut Groenlandiæ (Vanhöffen)

2. **Sphærella Allescheri** Sacc.-Syll. IX, p. 612. — forma **arctica** 1997
Allesch. in Allescher et P. Hennings, Pilze aus dem Umanakdistrikt, 1897, p. 6. — Peritheciis sparsis, interdum dense gregariis et tum maculas nigras efformantibus, ceteris ut in forma typica: ascis immaturis subcylindraceis, breve stipitatis, ca. 50-60 × 8, aparaphysatis; sporulis maturis non visis.

Hab. in caulibus siccis Thalictri alpini pr. Storö Groenlandiæ (Vanhöffen).

3. **Sphærella Vesicariæ-arcticæ** P. Henn. in Allescher et P. Hen- 1998
nings, Pilze aus dem Umanakdistrikt, 1897, p. 6. — Peritheciis caulicolis et amphigenis, sparsis gregariisque, subglobosis, atris; ascis oblongis, subclavatis vel subfusoideis, 60-75 × 17-21, apice obtusis, 8-sporis; sporidiis subdistichis vel conglobatis, clavatis, utrinque obtusis, medio 1-septatis, haud constrictis, rectis, hyalinis, 20-25 × 7-8.

Hab. in foliis caulibusque Vesicariæ arcticæ pr. Karajak-Nunatak Groenlandiæ (Vanhöffen).

4. **Sphærella karajacensis** Allesch. in Allescher et P. Hennings, Pilze 1999
aus dem Umanakdistrikt 1897, p. 7. — Peritheciis amphigenis epidermide tectis, dein protuberantibus, sparsis, globosis, poro pertusis, atris; ascis oblonge clavatis, breviter stipitatis, 8-sporis, ca. 50-60 × 18-22; sporidiis conglobatis, subclavatis, utrinque rotundatis, 1-septatis, rectis, guttulatis, hyalinis, denique fuscidulis, ca. 16-20 × 5-6.

Hab. in foliis emortuis Papaveris nudicaulis, sæpe socia *Sphærella arthopyrenoide* pr. Karajak-Umanak Groenlandiæ (Vanhöffen).

5. **Sphærella Chelidonii** Fautr. et Lamb. Rev. Mycol. 1895, p. 170. 2000
— Peritheciis gregariis, sæpe lineariter dispositis, nigris, minutis, 100-120 μ. diam.; ascis minutis, rosulatis, 40 × 8; sporidiis monostichis v. cumulatis, uniseptatis, subacutis, 10 × 3.

Hab. in caulibus siccis Chelidonii majoris in Gallia.

6. **Sphærella stenospora** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 461. 2001
— Peritheciis erumpentibus, numerosis, dense sparsis, 100–150 diam., supra perforatis; ascis oblongis, 45-55 × 10–15, breviter stispitatis, sæpe uno latere basim versus incrassatis; sporidiis disti-

chis, oblongo-fusoideis, uniseptatis, non v vix constrictis, 14-16 × 3-4.

Hab. in caulibus emortuis Sphæralceæ, Colorado Amer. bor. — *Sph. spinarum* proxima.

7. **Sphærella Orobi** Hazsl. Math. es term. Közlem. XXV, 2. Budapest 1892, p. 105, t. VI, fig. 23. — Mycelio nigro per contextum supremum foliorum vaganti, maculas nigricantes in utraque superficie foliorum formante; peritheciis epidermide emergentibus, globosis, apiculatis; ascis obovatis, ima basi fasciculatis absque paraphysibus, 25 × 12; sporidiis aggregatis, fusiformibus, curvatis, hyalinis, uniseptatis, 8-12 × 3-4. 2002

Hab. in foliis emortuis Orobi verni in Hungaria.

8. **Sphærella rubina** Peck, 48 Rep. 1896, p. 16. — Peritheciis minutis, 170–200 μ. diam., solito gregariis, subinde greges latos efformantibus, submembranaceis, obscure papillatis, pertusis, subglobosis v. depressis, initio epidermide velatis, demum, hac secedente, superficialibus, nigris; ascis cylindraceis, subsessilibus, 70-80 × 10-12; sporidiis monostichis, oblongis, obtusis, 1-septatis, medio plerumque constrictis, hyalinis, 15 × 6-7, cellula sup. paullo latiore. 2003

Hab. in truncis Rubi Idæi etc. culti, Menands Amer. bor. — A *Didymella applanata* præcipue paraphysibus nullis dignoscitur.

9. **Sphærella idæina** Hazsl. Math es term. Közlem. XXV, 2 Budapest 1892, t. V, fig. 21, p. 104. — Peritheciis sparsis, hemisphæricis prominentibus, ostiolo papillæformi præditis, solummodo fasciculo ascorum farctis; ascis clavatis, sessilibus, 8-sporis; sporidiis biseriatis, hyalinis, bilocularibus, oblongis v. oblongo-cylindricis, loculis inæqualibus, quorum alter vel angustior vel latior, alter est longior, sed occurrunt etiam sporidia fusiformia, curvata, 14-16 μ. longa; longissima sporidia sunt fusiformia, curvata; crassities sporidiorum est variabilis. 2004

Hab. in foliis Rubi Idæi in Hungaria.

10. **Sphærella innumerella** Karst.-Sacc. Syll. I, p. 506. — Var. **Rubi** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 104. — Peritheciis maculis minutis rotundatis elevatis insidentibus, hemisphærice elevatis, ostiolo prominulo hemisphærico præditis; ascis oblongo-cylindricis v. clavatis, sessilibus, 6-sporis, 60 μ. longis; sporidiis hyalinis diblastis, ovatis 18 μ. longis, cuneiformibus 20 longis vel fusiformibus curvatis, obtusis 26 μ. longis, ad septum non constrictis, loculis æqualibus. 2005

Hab. in foliis Rubi fruticosi in Hungaria.

11. **Sphærella Zizyphi** Pat. Cat. rais pl. cell. Tunisie, 1897, p. 104. 2006

— Peritheciis sparsis, erumpentibus, globosis v. elongatis, $^1/_3$ mm. longis, atris, tenuiter parenchymatico-tunicatis; ascis numerosis, ovoideis, 8-sporis, 50 × 23; sporidiis distichis, hyalinis, ovatis, 1-septatis, non constrictis, 15 × 6.

Hab. in ramulis Zizyphi in Tunisia.

12. **Sphærella mazzantioides** Sacc. Bull. Soc. Myc. de Fr. 1896, pag. 65, tab. V, fig. 5. — Peritheciis ramicolis, hinc inde dense aggregatis maculasque nigras, mazzantioideas, 0,5 mm. diam. formantibus, globuloso-depressis, centro pertusis, 90-110 μ. diam.; ascis rosulatis, aparaphysatis, fusoideis, subsessilibus, 40-41 × 9-11, octosporis; sporidiis distichis, fusoideo-clavulatis, hyalinis, 14-15 × 3 rectiusculis, uniseptatis, non vel vix constrictis. 2007

Hab. in sarmentis semivivis Vitis viniferæ pr. Rigny Galliæ. — Pulchella species, *Sph. Manganottianæ* affinis, sed perithecia tam conferta, ut *Mazzantia* vel *Phyllachora* videatur.

13. **Sphærella dolichospora** Sacc. et Fautr. Rev. Mycol. 1897, p. 143. — Peritheciis minutissimis, confertis, maculas oblongas formantibus; ascis tumidis, 60 × 15; sporidiis hyalinis, curvulis, utrinque leviter obtusis, uniseptatis, non constrictis, 30-32 × 4. 2008

Hab. in caulibus Laserpitii gallici in Gallia.

14. **Sphærella longispora** Penz. et Sacc. Malpighia XI, 1897, p. 397. — Maculis variis, internerviis, subochraceis; peritheciis epiphyllis, gregariis, innato-prominulis, subglobosis, 100-150 μ. diam., pertusis; ascis fusoideis, utrinque acutatis, subsessilibus, 50 × 10, aparaphysatis, 8-sporis; sporidiis di-tristichis, tereti-fusoideis, leniter curvatis, utrinque obtusulis, 1-septatis, non constrictis, hyalinis, 25-28 × 4. 2009

Hab. in foliis languidis Araliaceæ? cujusdam, Java.

15. **Sphærella Bardanæ** Hazsl. Math. es term. Közlem. XXV, 2 Budapest, 1892, p. 108, t. VI, f. 25. — Peritheciis globosis, gregariis, punctiformibus, nigris, maculis griseo-nigris insidentibus; ascis cylindricis, breve crassiuscule stipitatis, octosporis, aparaphysatis; sporidiis monostichis, 12 × 6, 1-septatis, hyalinis, loculo altero majore, leniter constrictis. 2010

Hab. in caulibus Lappæ in Hungaria. — Inter *Sph. Compositarum* et *Sph. caulincolam* fere media.

16. **Sphærella Pascuorum** Fautr. Rev. Mycol. 1896, p. 71. — Peritheciis minutis; ascis ventricosis, 20-30 × 8-10; sporidiis cumulatis, fusoideis, uniseptatis, pluriguttulatis, 10-12 × $2^1/_2$-3. 2011

Hab. in pedunculis Leucanthemi vulgaris in Gallia.

17. **Sphærella ambigua** Fautr. et Lamb. Rev. Mycol. 1895, p. 170. 2012
— Peritheciis minutissimis, numerosis, tectis, ostiolo emergentibus; ascis cylindraceis, 30 × 8; sporidiis incrassatis, diu simplicibus, demique 1-septatis, 3-4-guttatis, 10 × 3.

Hab. in caulibus siccis Cichorii Intybi in Gallia.

18. **Sphærella vagans** Ell. et Ev. Proc. Acad. Philad. 1895, p. 421. 2013
— Peritheciis sparsis, subcuticularibus, dein superficialibus, depresso-globosis v. subellipticis, perforatis, 250-300 μ. diam.; ascis cylindraceis, subsessilibus, p. sp. 55-60 × 7-8; sporidiis distichis, ovatis, uniseptatis, ad septum constrictis, hyalinis, 12-16 × 5-7.

Hab. in caulibus emortuis Valerianæ silvaticæ et Castilleiæ miniatæ, socia *Leptosphæria concinna,* Colorado, Amer. bor.

19. **Sphærella Cruciatæ** Lamb. et Fautr. Rev. Mycol. 1895, p. 170. 2014
— Peritheciis epidermide tectis eamque nigrificantibus, majusculis, circiter ½ mm. diam., rotundatis, pertusis; ascis cylindraceis, 80-100 × 8-10; sporidiis submonostichis, hyalinis, uniseptatis, leniter curvulis, acutiusculis, 16-20 × 4.

Hab. in caulibus siccis Galii Cruciatæ in Gallia.

20. **Sphærella Menthæ** Lamb. et Fautr. Rev. Mycol. 1895, p. 170. 2015
— Peritheciis numerosis, rotundatis, vix tectis, contextu crasso; ascis 40 × 10; sporidiis uniseptatis, 10-14 × 4, rarius 18 × 5.

Hab. in caulibus siccis Menthæ silvestris in Gallia.

21. **Sphærella staticicola** Pat. Cat. rais. pl. cell. Tunisie, 1897, 2016
p. 104. — Peritheciis gregariis, minutis, globosis, levibus, apice perforatis, 100 μ. diam., contextu brunneo, celluloso; ascis aparaphysatis, deorsum inflatis, sursum attenuatis, 40-50 × 15-20 sporidiis hyalinis, ovoideis, medio septatis constrictisque, 11-13 × 3-4 uno loculo conspicue crassiore.

Hab. in pedunculis siccis Statices in Tunisia.

22. **Sphærella syringicola** Otth, Bern. Mittheil. 1870, p. 110. — Epi- 2017
phylla; peritheciis minutis, nigris, paucis, in macula exarida cinerea sparsis, margine tumidulo cinctis, epidermide velatis, ostiolo demum revelato, umbilicato et poro pervio; ascis clavatis, octosporis; sporidiis hyalinis, oblongis, bilocularibus, anasomeris, leniter constrictis, obtusis, 13 × 6; paraphysibus nullis.

Hab. in foliis vivis Syringæ vulgaris, Steffisburg in Helvetia.

23. **Sphærella Andromedæ** Tracy et Earle, Bull. Torr. Bot. Club. 2018
1895, p. 176. — Hypophylla; maculis nullis; peritheciis numerosis, sparsis, sæpe paginam inferiorem foliorum occupantibus, nigris,

erumpentibus, ostiolatis, demum collabentibus; ascis obovatis, apice paululum incrassatis; sporidiis ovalibus, hyalinis, uniseptatis, cellulis subæqualibus, 7-8 × $2^1/_2$-3.

Hab. in foliis vivis Andromedæ nitidæ, Mississippi, Amer. bor.

24. **Sphærella Bonæ-noctis** Sacc. Fl. mycol. Lus. p. 68. — Maculis 2019
amphigenis, orbicularibus, 2-3 mm. diam., initio olivaceis, dein centro albidis; peritheciis paucis lenticularibus fulvo-umbrinis, laxe cellulosis, poro ampliusculo pertusis, 90-120 μ. diam.; ascis ovato-oblongis, curvulis, subsessilibus, apice obtusulis, 40-45 × 18, aparaphysatis, octosporis; sporidiis oblongis, medio constricto-uniseptatis, utrinque obtusulis, 22-25 × 7-8, quadriguttatis, hyalinis.

Hab. in foliis subvivis Ipomœæ Bonæ-noctis, S. Thomè (Moller).

25. **Sphærella Nicotianæ** Ell. et Ev. Proc. Acad. Philad. 1895, p. 420. 2020
— Peritheciis maculis pallidis plerumque insidentibus, subcuticularibus, globosis, 80-100 μ. diam., perforatis, ostiolo papilliformi; ascis oblongo-obovatis, sessilibus, aparaphysatis, 36-45 × 15-20; sporidiis in asco confertis, oblongo-obovatis, uniseptatis, hyalinis, obtusis, vix constrictis, 11-13 × 5-6.

Hab. in cortice Nicotianæ, California (Blasdale).

26. **Sphærella Linariæ** Vestergr. Bihang K. Svenska V. A. Handl. 2021
XXII, Afd. III, n 6, 1896, p. 15. — Peritheciis sparsis, epidermide initio velatis, mox totis prorumpentibus, globosis, rugosiusculis, papillatis, 120-140 μ. diam., textura parenchymatica tenuiore præditis, membranaceis, atris; hyphis in superficie matricis repentibus, cellulis plus minusve globosis, ca. 7-12 μ. diam., brunneis compositis, sæpe anastomosantibus et nodos formantibus; ascis cylindraceis v. clavulatis, 47-53 × 9-11, brevissime pedicellatis, apice rotundatis, aparaphysatis; sporidiis octonis, distichis, cylindraceis, 13-22 × 3-5, rectis v. subcurvulis, prope medium uniseptatis, vix constrictis, utrinque rotundatis, hyalinis.

Hab. in foliis et caulibus exsiccatis Linariæ vulgaris in Gotlandia Sueciæ.

27. **Sphærella crebra** Fautr. et Lamb. Rev. Mycol. 1896, p. 144. 2022
— Peritheciis numerosissimis, subconfertis, punctiformibus, leviter immersis, nigris, rotundatis, poro pertusis, 120-150 . diam.; ascis aparaphysatis, rosulatis, leniter curvulis, 50-60 × 8-10; sporidiis oblongis, uniseptatis, ad septum leniter constrictis, loculis inæqualibus, 16-18 × 5-6.

Hab. in caulibus siccis Linariæ vulgaris in Gallia.

28. **Sphærella Phyteumatis** Jacz. Bull. Soc. Mycol. de France 1896, p. 113. — Peritheciis immersis, globosis, nigris, poro pertusis; ascis numerosis, sessilibus, 45 × 5-7, apice incrassatis; sporidiis hyalinis, fusiformibus, rectis v. arcuatis, bicellularibus, 12-15 × 2-5. 2023

Hab. in caulibus siccis Phyteumatis spicati in Helvetia.

29. **Sphærella Humuli** Hazsl. Math. es term. Közlem. XXV, 2 Budapest, 1892, p. 107, t. VI, f. 24. — Peritheciis seriatis, non dispersis, in epidermidem cinerescente nidulantibus, minutis sed majoribus quam perithecia associata *Læstadiæ,* globosis sed parum applanatis ita ut diam. verticalis $^1/_6$ minor quam horizontalis; ostiolo rotundo, non emergenti; ascis fasciculatis, absque paraphysibus, ovatis v. lanceolatis, in utraque parte rotundatis, ob sporas evolutas tota superficie tumulosis, 8-sporis; sporidiis hyalinis, ovatis, raro ovalibus, 1-septatis, ad septum (in forma ovali) medio constrictis, 14-16 × 7-8. 2024

Hab. in sarmentis emortuis Humuli Lupuli in Hungaria.

30. **Sphærella quercina** Jacz. Bull. Soc. Myc. de France 1896, p. 104. — Peritheciis globulosis, hypophyllis, minutis, sparsis, nigris, ostiolo perforatis; ascis sessilibus numerosis, 80-90 × 10-11, apice incrassatis; sporidiis hyalinis, bicellularibus, non constrictis, distichis, fusiformibus, oblongis, utrinque obtusis, rectis v. arcuatis, 20 × 5. 2025

Hab. in foliis exsiccatis Quercus in Helvetia. — Status ascosphorus *Aposphæriæ quercinæ* Jacz.

31. **Sphærella laricina** R. Hart. Forstl. naturwiss. Zeitschr. München 1895, p. 445 et Sitzungsber. Akad. München. Math.-phys. Cl. 1897, p. 279. — Maculis brunneis; peritheciis globosis, per epidermidem erumpentibus, solitariis vel pluribus conjunctis, atro-brunneis, 100-150 μ. diam., ostiolo parum conspicuo; ascis stipitatis clavatis, 50-60 μ. longis, octosporis; sporidiis distichis primitus continuis, dein 1-septatis, oblongis, utrinque attenuatis, hyalinis, 15-17 × $2^1/_2$-3. 2026

Hab. in acubus deciduis, Laricis europææ quam maxime vexat, in Germania. — Status conidiophorus verisimiliter *Leptostromatis* species: acervulis disciformibus, tenuibus, dein in pustulas pseudo-parenchymatosas atro-brunneas incrassatis, 100-300 μ. diam., epidermidem rumpentibus, intus cavis; conidiis variis, aliis in interiore pustularnm evolutis, minutissimis, 3 × 1, aliis in exteriore pustularum numerosissimis, bacillaribus 30 μ. longis, initio

continuis, maturis 1-3-septatis; basidiis brevibus, gracilibus, subulatis.

32. **Sphærella creberrima** Penz. et Sacc. Malpighia XI, 1897, p. 397. 2027
— Maculis subcircularibus variisque, fusco-marginatis; peritheciis epiphyllis, creberrimis, innato-prominulis, punctiformibus, 75-90 μ. diam., poro pertusis; ascis oblongo-clavatis, breve stipitatis, apice rotundatis, 36 × 9, aparaphysatis, octosporis; sporidiis di-tristichis, fusoideis v. subclavatis, 12-14 × 3-4, 1-septatis, non constrictis, hyalinis.

Hab. in foliis adhuc vivis plantæ dicotyledoneæ, Tjibodas Javæ.

33. **Sphærella frigida** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 461. — 2028
Peritheciis globosis, subastomis, nigris, membranaceis, 100-110 μ. diam., membrana alba insidentibus; ascis clavato-cylindraceis, 35-40 × 8-10, subsessilibus, aparaphysatis, octosporis; sporidiis distichis, fusoideo-oblongis, uniseptatis, leniter constrictis, rectis v. lenissime curvulis, obtusis, 12-15 × 3 $^1/_2$-4 $^1/_2$, fumoso-hyalinis.

Hab. in ramis et ligno aëri diu exposito, Colorado Amer. bor.

34. **Sphærella hyphiseda** Fautr. et Lamb. Rev. Mycol. 1897, p. 143. 2029
— Peritheciis gregariis, minutissimis, numerosis, plerumque sterilibus, applanatis, astomis, contextu areolato, hyphis brunneis conjunctis; ascis subobpiriformibus v. ventricosis; sporidiis subglobosis, oblongis, rotundatis, hyalinis, uniseptatis, 18-22 × 4-4 $^1/_2$.

Hab. in caulibus siccis Ornithogali pyrenaici in Gallia.

35. **Sphærella millepunctata** F. Tassi, Bull. del Lab. Bot. d. R. Univ. 2030
Siena 1898, fasc. I, pag. 6, tab. IX, fig. 1. — Peritheciis dense gregariis, punctiformibus, nitidis, sphæroideis, atris, prominulis, 80-100 μ. diam., contextu fuligineo; ascis subclavatis, apice membrana crassa ornatis, basi attenuatis, aparaphysatis, 8-sporis; sporidiis distichis, vetustate inordinate conglobatis, ellipsoideis, 1-septatis, non constrictis, hyalinis, sæpius granuloso-nebulosis; peritheciis spermogonicis, ascophoris commixtis, 50-70 .; spermatiis ovatis v. ovato-oblongis, hyalinis v. chlorinis, 4-4 $^1/_2$ × 2.

Hab. in foliis siccis vetustis Anigozanthi flavidi in horto bot. Senensi, Italia.

36. **Sphærella Hystrix** Fautr. Rev. Mycol. 1895, p. 170. — Peri- 2031
theciis sparsis v. laxe gregariis, amphigenis, immersis, poro 20 μ. diam. pertusis; ascis ventricosis, difformibus; sporidiis ad septum constrictis, 22 × 8.

Hab. in foliis Asprellæ Hystricis in Gallia.

37. **Sphærella Arundinariæ** Atk. Bull. Cornell Univ. III, n 1, 1897, 2032

p. 9. — Maculis magnis, irregularibus; peritheciis mycelio ramoso brunneo insidentibus, minutis, sed prominulis, globosis, membranaceis, non papillatis, 60-80 μ. diam,; ascis ovatis, 30-40 × 12-14, aparaphysatis; sporidiis confertis, lanceolatis v. ovatis, 1-septatis, 11-13 × 3-4.

Hab. in foliis Arundinariæ tectæ, Auburn, Alabama Amer. bor.

38. **Sphærella Sacchari** Speg. Rev. Agr. y Veter. La Plata 1896, 2033
p. 30. — Maculis nullis v. pallescentibus indeterminatis; peritheciis hypophyllis dense gregariis seriatis, globosis, 130-180 . diam., glabris, immersis, epidermide tectis eaque plus minusve arcte adnatis, ostiolo vix papillato epidermidem perforante sed non vel vix exserto ornatis, membranaceo-coriaceis, contextu subopaco parenchymatico, fusco-olivaceo; ascis cylindraceis non vel vix obclavulatis, 70 × 12, antice obtusissime rotundatis crasseque tunicatis, postice non vel vix subattenuatis, abrupte minuteque nodulosopedicellatis, octosporis, aparaphysatis; sporidiis rectis v. oblique distichis, ellipsoideis, 16-20 × 5-6, medio 1-septatis, non vel leniter constrictis, loculis subæquilongis, supero vix nonnihil crassiore obtusioreque, hyalinis, levibus.

Hab. in foliis apicalibus adhuc convolutis frigore hiemali necatis Sacchari officinarum, La Plata, Argentina.

39. **Sphærella Wakkeri** Sacc. et Syd. *Sphærella Sacchari* Wakk. De 2034
Ziekten van het Suikerriet op. Java, Leiden 1898, pag. 196, nec Speg. — Peritheciis immersis, sparsis, 64 diam., sphæroideis, atro-fuscis, pariete cellulis teneris ostiolo rotundo rostello destituto; sporidiis hyalinis, fusoideis, utrinque acutis medio 1-septatis, 16 × 4.

Hab. in foliis siccis Sacchari officinarum in Java.

40. **Sphærella subcrassa** Sacc. et Syd. Sic dicenda est *Sphærella maculans* Pass. in Syll. IX, p. 646, quum exstet anterior *Sph. maculans* Sacc. et Roum. in Syll. I, p. 505.

41. **Sphærella effusa** Sacc. et Syd. Sic dicenda est *Sphærella adusta* Fckl. in Syll. IX, p. 625, quum exstet anterior *Sph. adusta* Niessl in Syll. I, p. 511.

42. **Sphærella pucciniophila** Sacc. et Syd. Sic dicenda est *Sphærella parasitica* Fautr. in Syll. IX, p. 618, quum exstet anterior *Sph. parasitica* Wint. in Syll. IX, p. 658.

43. **Sphærella asterinæformis** Sacc. et Syd. Sic dicenda est *Sphærella asterinoides* Pat. in Syll. XI, p. 297, quum exstet anterior *Sph. asterinoides* Ell. et Ev. in Syll. IX; p. 619.

44. **Sphærella thalictricola** Sacc. et Syd. Sic dicenda est *Sphærella septorioides* Peck in Syll. IX, p. 612, quum exstet anterior *Sph. septorioides* (Desm.) Niessl in Syll. I, p. 482.

APIOSPORA Sacc. — Syll. I, p. 539. IX, p. 659. XI, p. 301.

1. **Apiospora rhodophila** Sacc. Malpighia XI, 1897, pag. 286. — 2035
Peritheciis laxe gregariis subcutaneis, dein partim erumpentibus, globoso-depressis, brevissime papillatis, 0,3-0,5 mm. diam., atris; ascis cylindraceis v. clavatis, breve crasseque stipitatis, 80-120 × 15-16, octosporis; paraphysibus filiformibus inæqualibus; sporidiis oblique monostichis v. distichis, ovato-fusoideis, sursum crassioribus, 18-22 × 7-8, prope basim uniseptatis, non constrictis, hyalinofaretis, loculo imo vix 5 μ. longo.

Hab. in ramis spinisque Rosæ alpinæ, Riva-Valdobbia in Italia boreali (Carestia).

2. **Apiospora Rosæ** Oud. Révis. des Champ. II, 1897, p. 465. — Pe- 2036
ritheciis laxe gregariis, tectis, membranaceis, demum per epidermidem erumpentibus, ostiolo papilliformi, $^1/_4$ mm. diam., nigris, globosis, depressis; ascis paraphysatis, octosporis, oblongis, utrinque interdum attenuatis, 190 × 21; sporidiis distichis, hyalinis, piriformibus, apice latis, basi angustatis, bilocularibus, basim versus uniseptatis, 16-17 × 9-12.

Hab. in ramis Rosæ caninæ in Hollandia. — «Forte eadem ac præcedens vel varietas».

3. **Apiospora camptospora** Penz. et Sacc. Malpighia XI, 1897, p. 398. 2037
— Peritheciis plerumque in lineolas seriatis v. paucis varie congregatis, epidermide rimosa v. stellatim rupta cinctis, globulosis, vix papillatis, nigris, 180-200 μ. diam.; ascis crasse cylindraceis, apice rotundatis, brevissime stipitatis, 75-80 × 15-17; paraphysibus guttulatis; sporidiis distichis v. oblique monostichis, cylindraceo-oblongis, deorsum curvatis, utrinque obtusulis, infra medium 1-septatis, non constrictis, 35-38 × 9, farctis, hyalinis.

Hab. in foliis emortuis Sacchari officinarum pr. Buitenzorg, Java.

STIGMATEA Fr. — Syll. I, p. 541, IX, p. 660.

1. **Stigmatea brasiliana** P. Henn. Hedw. 1897, p. 230. — Maculis 2038
pallidis, fusco-marginatis, rotundatis, 5-7 mm. diametro; peritheciis sparsis, innato-prominulis, minutis, punctiformibus, atris; ascis subclavatis, substipitatis, 8-sporis, 25-36 × 9-13; sporidiis subdisti-

chis, oblonge subclavatis vel subfusoideis, 1-septatis, haud constrictis, hyalinis, subflavescentibus, 9-13 × 3-4.

Hab. in foliis Myrtaceæ? pr. Rio de Janeiro Brasiliæ (Glaziou).

2. **Stigmatea Ulei** Bres. et Sacc. sp. n. — Peritheciis epiphyllis, late gregariis, e basi insculpta prominulis, nigricantibus, nitidulis, astomis, 0,2-0,3 mm. diam., contextu partis superioris perithecii densissimo, opaco, inferioris prosenchymatico, fuligineo; ascis radiantibus, cylindraceo-clavulatis, apice rotundatis, deorsum obtuse tenuatis, 36-42 × 6, paraphysibus asco longioribus, 1-1,5 μ. cr.; sporidiis distichis, anguste oblongis, utrinque acutiusculis, 9-10 × 2,5, hyalinis. 2039

Hab. in folii Gesneriaceæ cujusdam in Serra dos Orgaos Brasilia (Ule).

DIDYMELLA Sacc. — Syll. I, p. 545, IX, p. 661, XI, p. 301.

1. **Didymella effusa** (Niessl) Sacc. Syll. I, p. 552. — var. **Aronici** Sacc. Malpighia XI, 1897, p. 286. — Peritheciis laxe gregariis; ascis 75-85 × 10-12; sporidiis fusoideis, curvatis, uniseptatis, 22-24 × 5, apice acutis, hyalinis, septis leniter constrictis. 2040

Hab. in caulibus Aronici scorpioidis, socia Phoma, Riva-Valsesia, Italia (Carestia).

2. **Didymella purpurea** Lamb. et Fautr. Rev. Mycol. 1896, p. 142. — Peritheciis confertis, mediocribus, rotundatis, tectis, dein erumpentibus, papilla perforatis; ascis elongato-clavatis; paraphysibus ascos superantibus; sporidiis sursum distichis, hyalinis, ovoideis, uniseptatis, constrictis, 11-13 × 5-6. 2041

Hab. in caulibus siccis Digitalis purpureæ in Gallia. — *D. tostæ* affinis.

3. **Didymella Ricini** Ell. et Ev. Proc. Acad. Philad. 1895, p. 421. — Peritheciis gregariis, minutis, 110-150 μ., subcuticularibus, epidermidem in pustulas nigras applanatas elevantibus et *Vermicularieæ* speciem simulantibus, solitariis v. 2-3 consociatis; ostiolis inconspicuis; ascis oblongo-clavatis, brevissime stipitatis, 45-55 × 8-10; sporidiis distichis, oblongis, obscure guttatis, demum uniseptatis, non constrictis, curvulis, obtusis, hyalinis, 13-18 × 4-4 1/2. 2042

Hab. in petiolis Ricini communis, Louisiana, Amer. bor. (Langlois).

4. **Didymella tiliaginea** Fautr. et Lamb. Rev. Mycol. 1896, p. 142. — Peritheciis sparsis, tectis, emergentibus, minutis, globosis, atris, 2043

nitidis; ascis ventricosis, piriformibus, 40 × 20 et ultra (60 × 12); sporidiis initio cumulatis, dein distichis, cylindraceis obtusis, utrinque rotundatis, uniseptatis, loculis inæqualibus, constrictis, 4-guttulatis. 17-20 × 6.

Hab. in ramulis Tiliæ, socia *Sphærulina tiliari,* in Gallia.

5. **Didymella prunicola** Fautr. et Lamb. Rev. Mycol. 1896, p. 68. — 2044
Peritheciis gregariis, per corticis rimas erumpentibus, majusculis, nigris, ostiolis parum prominentibus; paraphysibus filiformibus; ascis cylindraceis, 140 × 11-12; sporidiis monostichis inclinatis, hyalinis, uniseptatis, 18-20 × 9-10.

Hab. in ramis Pruni spinosæ in Gallia.

6. **Didymella ailanthina** Togn. Seconda contr. Micol. Tosc. p. 5. — 2045
Peritheciis crebre sparsis, corticolis, 225 μ. diam., ostiolo obtuso; ascis cylindraceis, breve stipitatis, paraphysatis, 80-90 × 11; sporidiis hyalinis, bi-quadriguttatis, 1-septatis, medio constrictis, 16-18 × 7-9.

Hab. in cortice Ailanthi glandulosæ in Etruria.

7. **Didymella piceana** Delacr. Bull. Soc. Mycol. de France XIII, 2046
p. 126 cum icone. — Peritheciis atris, immersis, collo vix prominente, 200 μ. diam.; ascis cylindraceis, summo rotundatis, tetrasporis, 75 × 10-12; sporidiis uniseptatis, septo constrictis, bi-vel sæpius quadriguttulatis, hyalinis, ovato-attenuatis, 18 × 6; paraphysibus continuis, 2 μ. crassis.

Hab. in squamis ramorum Piceæ excelsæ, foliis delapsis in Gallia.

8. **Didymella maculosa** Penz. et Sacc. Malpighia XI, 1897, p. 398. 2047
— Maculis ovato-oblongis, subfuligineis; peritheciis in quaque macula paucis, innato-erumpentibus, globoso-depressis, conico-papillatis, demum latiuscule pertusis, membranaceo-carbonaceis, glabris, 0,5-0,6 mm. diam.; ascis tereti-clavatis, breviter stipitatis, apice rotundatis, copiose paraphysatis, 8-sporis, 140-150 × 14-15; sporidiis tereti-fusoideis, curvulis, utrinque obtusulis, 40-45 × 8, medio 1-septatis, vix constrictis, pluriguttatis v. farctis, hyalinis.

Hab. in culmis crassioribus (Bambusæ?) emortuis, socia *Oxydothide* in horto bot. Bogoriensi, Java. — Peritheciis subcarbonaceis semiemergentibus ad *Melanopsammam* accedit.

MASSARINULA Genean de Lamarl. Rév. gén. de Bot. 1894, p. 321. — (Etym. a *Massaria,* cui affinis). — Perithecia globosa, tecta, ostiolo prædita; asci paraphysati octospori; sporidia bilocularia, hyalina, muco hyalino obvoluta.

1. **Massarinula quercina** Gen. de Lamarl. l. c. c. fig. — Peritheciis 2048
subcutaneis sparsis v. 2–3-gregatis, minute papillatis, vix erumpentibus; ascis oblongo-cylindraceis, brevissime stipitatis apice rotundatis, 53 × 13, octosporis; sporidiis hyalinis, constricto-didymis, 4-guttatis, 13–15 × 5–5,5, strato mucoso hyalino 2–3 μ. cr. obvolutis.

Hab. in ramulis emortuis Quercus pedunculatæ pr. silvam Fontainebleau Galliæ.

2. **Massarinula italica** Sacc. Malp. 1898 p. 207, t. VII, f. 3. — Peri- 2049
theciis laxe gregariis, cortice omnino immersis, globulosis, 0,5 mm. diam., ostiolo vix peridermium perforante, nucleo (maturo?) albido; ascis cylindraceo-clavatis, breve crasse stipitatis, apice rotundatis, octosporis, 200–250 × 30-45; paraphysibus filiformibus; sporidiis distichis, oblongo-fusoideis, constricto 1-septatis, strato hyalino tenui initio obvolutis, 50 × 20, hyalinis, granulosis v. plasmate varie constricto.

Hab. in ramulis emortuis Quercus Ilicis, in horto bot. Patavino, Nov. 1897. — Secunda pulchelli generis species, omnino distincta.

3. **Massarinu Marsilii** Sacc. sp. n. — Peritheciis hinc inde irregula- 2050
riter gregariis, peridermio leviter pustulato innatis, globosis, 500-600 diam., nigris, intus albidis, ostiolo vix papillato, minuto erumpente, contextu parenchymatico, crasso, duriusculo, atro; ascis tereti-clavatis, obtusis, breve crasse stipitatis, 120-140 × 24, octosporis; paraphysibus tortuosis, inæqualibus, guttulatis; sporidiis distichis, ovato-oblongis, utrinque rotundatis, 1-septatis, vix constrictis, strato mucoso hyalino angusto obvolutis, 30-33 × 12-14 (cum muco), totis hyalinis, farctis.

Hab. in ramis emortuis Populi albæ (jam a professori Jo. Marsilio circ. 1760 satæ) in horto bot. Patavino. — Ab affini *M. italica* differt ascis sporidiisque multo minoribus, perithecii pariete crassiori, matrice etc.

PHARCIDIA Körb. — Syll. IX, p. 676; XI, p. 303.

1. **Pharcidia epipolytropon** (Mudd) Jacz. Bull. Soc. Myc. de Fr. 1896, 2051
p. 90. — Peritheciis nigris, minutis, ostiolo papilliformi; sporidiis hyalinis, bicellularibus, ad septum constrictis, conglobatis, plerumque quaternis, 15 × 3.

Hab. in thallo Lecanoræ polytropæ, Helvetia.

2. **Pharcidia Guineti** Müll. Arg. Bull. Soc. Myc. de Fr. 1896, p. 88. 2052

— Peritheciis subemergentibus, globulosis, sparsis, nigris; ascis cylindraceis, 80 × 16, apice incrassatis; pseudoparaphysibus articulatis; sporidiis hyalinis, ovoideo-oblongis, bicellularibus, constrictis, loculis inæqualibus, 18–22 × 7–8.

Hab. in apotheciis Amphilomatis elegantis pr. Genève Helvetiæ.

3. **Pharcidia Gyrophoræ** Zopf, Nov. Act. LXX, 1897, p. 117 cum fig. 17–21. — Peritheciis minutis, breviter piriformibus, 0,1–0,16 mm. altis, 0,08–0,13 mm. latis, pertusis; ascis paucis, late clavatis v. late fusiformibus, vix stipitatis, apice lato rotundato, 39–50 × 14–20, plerumque octosporis, raro 4-sporis; sporidiis bicellularibus, loculo superiore latiore, luteolis, demum olivaceis, majuscule biguttulatis, 13–17 ½ × 7–8; paraphysibus nullis. 2053

Hab. in thallo Gyrophoræ cylindricæ in Tirolia (Arnold).

LIZONIA De Not. Ces. — Syll. I, p. 574, IX, p. 679.

1. **Lizonia Lagerheimii** Rehm, Hedw. 1896, p. 149. — Peritheciis aggregatis in pagina superiore, demum arescente et brunnescente foliorum primitus lineariter ad nervos, sessilibus, glabris, sphæroideis, nigris, poro minutissimo pertusis, c. 250 μ. lat.; perithecio molli, flavido-fuscidulo, parenchymatico; ascis ellipticis vel clavatis, apice valde incrassatis, late sessilibus, 70–100 × 15–20, 4–8 sporis; sporidiis fusiformibus, raro subclavatis, rectis 2-cellularibus, interdum medio subconstrictis, hyalinis, 30–36 × 6–7, distichis; paraphysibus ramosis, septatis. 2054

Hab. ad folia Alchemillæ, in provincia Pichincha Æquatoriæ (Lagerheim).

2. **Lizonia opposita** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 158. — Peritheciis amphigenis, globulosis, rugulosis, 75–97 μ., in macula ferruginosa orbiculari dense gregariis; ostiolo nullo; ascis octosporis, ovoideis v. piriformibus, sessilibus v. breviter pedicellatis, 36–61 × 28, aparaphysatis; sporidiis conglomeratis, hyalinis, oblongis, obtusis, 1-septatis, 25,2 × 10,8, loculo superiore latiore quam inferiore. 2055

Hab. in foliis languidis ignotis, Costa Rica.

MELCHIORIA Penz. et Sacc. Malpighia XI, 1897, p. 399. (Etym. a cl. botanico Melchior Treub). — Perithecia in cæspitulos superficiales botryose aggregata, sed discreta, globulosa, papillata, nigra, carbonacea, stromate albo molliusculo interposito. Asci oblongo-

fusoidei, octospori, obsolete paraphysati. Sporidia fusoidea, 1-septata, hyalina.

1. **Melchioria leucomelæna** Penz. et Sacc. l. c. — Cæspitulis gregariis 1-2 mm. diam., pulcre albo-nigris; peritheciis in quoque cæspitulo 8-14, globosis, acute papillatis, nigris, 0,4 mm. diam., discretis, materia stromatica alba plus minus copiosa laxe connexis; ascis crasse fusoideis, utrinque imprimis basi acutatis, 90-120 × 24-30, octosporis; paraphysibus (spuriis?) paucis, brevibus; sporidiis tristichis, fusiformibus, utrinque obtusulis, curvis, medio 1-septatis, non constrictis, 50-61 × 9, hyalinis, initio (ut videtur) muco exiguo hyalino obductis. 2056

Hab. in caulibus emortuis, fracidis Eletteriæ, Tjibodas, Java. — Stroma album ex cellulis minutis lunulatis, guttulatis, 6-7 × 2 constat. Fungillus eximius, cum nullis comparandus! Asci et paraphyses aqua immersi fluxiles fiunt et deliquescunt.

PTERIDIOSPORA Penz. et Sacc. Malpighia XI, 1897, p. 399. (Etym. *pteridion* parva ala, et *spora*). — Perithecia subsuperficialia, globoso-conica, carbonacea, nigricantia, ostiolo papillato. Asci paraphysati, octospori. Sporidia oblonga, bilocularia, hyalina, membranâ hyalina mucosa deorsum in alam spathulatam productâ obvoluta. Fabrica sporidiorum a *Melanopsamma* statim genus distinguitur.

1. **Pteridiospora javanica** Penz. et Sacc. l. c. — Peritheciis gregariis, basi insculpta applanata subsuperficialibus, globoso-conoideis, glabris, nigricantibus, 0,5-0,7 mm. diam., acutiuscule papillatis; ascis cylindraceis, apice truncatis, breve stipitatis, 180 × 15; paraphysibus filiformibus, tortuosis; sporidiis oblique monostichis v. partim distichis, oblongo-fusoideis, 30 × 6-7, inæqualiter bilocularibus, loculo superiore crassiore, longiore et obtusiore, hyalinis, ad septum valde constrictis, strato tenui mucoso obductis alaque spathulata, 12-15 × 12, hyalina basi auctis. 2057

Hab. in culmis emortuis Bambusæ, Tjibodas, Java.

MELANOPSAMMA Niessl — Syll. I, p. 575, IX, p. 682, XI, p. 303.

1. **Melanopsamma Martianoffiana** Sacc. Malpighia 1896, p. 270, tab. V, fig. 1. — Peritheciis gregariis v. hinc inde subaggregatis, erumpenti-superficialibus, globulosis, papillatis, atris, nitidulis, vix rugulosis, 250 *μ*. diam., contextu subcoriaceo, brunneo, parenchymatico; ascis crasse clavatis, brevissime attenuato-stipitatis, 100-120 × 2058

18, octosporis, apice rotundatis; paraphysibus crassiusculis, guttulatis, (spuriis?); sporidiis distichis, ellipsoideo-oblongis, rectis, curvulisve, 20–24 × 8-9, utrinque obtusulis, 1-septatis, non v. vix constrictis, dilutissime olivaceis.

Hab. in ramulis Spirææ chamædryfoliæ in silvis Sibiriæ. — Affinis *M. Syringæ* Karst.

2. **Melanopsamma caulincola** Rehm in Rabenhorst-Pazschke, Fungi europ. n. 4160. — Peritheciis stromatice arcte confertis in strias longitudinales dispositis aut stipitem ambientibus, subglobosis, glabris, vix scabriusculis, atris, poro inconspicuo pertusis, subcarbonaceis, parenchymatice contextis, ca. 300 μ. diam., in mycelio ex hyphis rectangulariter ramosis contexto, tenuissimo sessilibus; ascis cylindrico-clavatis, apice rotundatis, ca. 70 × 12, octosporis, sporidiis plerumque monostichis, fusiformibus, rectis, bicellularibus, ad septum haud constrictis, hyalimis, ca. 18 × 5-6; paraphysibus filiformibus, hyalinis, 2 . crassis. 2059

Hab. in caulibus emortuis Salviæ spec., Serra Geral Brasiliæ (Ule). — Ceteris speciebus hujus generis valde affinis, sed prima *Melanopsammæ* species in caulibus observata.

3. **Melanopsamma alpina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 458. — Peritheciis erumpenti-superficialibus, gregariis, depresso-globosis, $^1/_4$-$^1/_2$ mm. diam., tenue tunicatis, subfragilibus, ostiolo obscuro v. papilliformi præditis; ascis clavato-cylindraceis, 75-85 × 8-10, paraphysatis, 8-sporis; sporidiis monostichis v. subdistichis, fusoideo-naviculatibus, 3-4-nucleatis, hyalinis, medio constricto-uniseptatis, 15-20 × $3\,^1/_2$-4. 2060

Hab. in cortice pineo, Colorado Amer. bor.

4. **Melanopsamma patellata** Penz. et Sacc. Malpighia XI, 1897, p. 398. — Peritheciis gregariis, superficialibus, globoso-depressis, mox collabascendo plano-patellaribus, 0,4-0,5 mm. diam., nigris, glabris, inter setulas nigras rigidulas crebras interseminatis, contextu olivaceo-fuligineo, molliusculo, circa ostiolum prosenchymatico; ascis (jam resorptis); sporidiis distichis, oblongo-fusoideis, utrinque rotundatis, curvulis, 1-septatis, vix constrictis, 2-nucleatis, 14-15 × 8-9, hyalinis. 2061

Hab. in culmis emortuis Bambusæ, Java.

5. **Melanopsamma Ellisii** Sacc. et Syd. Sic nominanda est *Melanopsamma borealis* Ell. et Ev. in Syll. XI, p. 305, quum exstet anterior *M. borealis* (Karst.) Sacc. in Syll. I, p. 578. 2062

BERTIA De Not. — Syll. I, p. 481, IX, p. 687, XI, p. 305.

1. **Bertia quercicola** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. 2063
XXXVI, 1897, part. 2, p. 13. — Peritheciis gregariis, liberis, subglobosis, $^1/_2$ mm., atris, opacis, rugoso-tuberculosis, rigidis, glabris, ostiolo non distincto; ascis teretibus, apice rotundatis, 120-140 × 10, octosporis, paraphysibus longioribus sursum ramulosis numerosis; sporidiis distichis, fusiformibus, rectis, hyalinis, medio septato-constrictis, quaque cellula grosse biguttata, demum tenuiter septata, 28-35 × 6-7.

Hab. in ligno vetusto Quercus, pr. Liège Belgii. — A *B. macrospora* Sacc. præsertim dimensionibus minoribus distinguenda.

VENTURIA Ces. et De Not. — Syll. I, p. 586, IX, p. 687, XI, p. 305.

1. **Venturia nervincola** Rehm, Hedw. 1895, p. (162). — Peritheciis 2064
gregariis, sessilibus, ovatis v. ellipticis, parenchymatice contextis, viridulis, mollibus, basi nonnullis hyphis fuscidulis, apice pilis 6-8 erectis, septatis, fuscis, 60 μ. longis, 3 μ. latis instructis, 90-180 × 90; ascis ovato-rotundis, crassis, 40-50 × 30, octosporis; sporidiis oblongis, interdum subcuneiformibus, medio vix constrictis, hyalinis, demum subfuscidulis, 21-24 × 10; paraphysibus non visis.

Hab. ad nervos paginæ inferioris foliorum vivorum Melastomatis cujusdam in Æquatoria (Lagerheim).

2. **Venturia Fraxini** Aderh. Hedw. 1897, pag. 83, tab. IV, fig. 6, 2065
Sphærella ditricha Awd. in litt. (Rbh. Fg. Europ. N. 943), *Sph. inæqualis* Cke. p. p. (Journ. of Bot. IV, p. 248). — Peritheciis gregariis, globosis, nigris, hypophyllis, 100-160 μ. diam., setis longissimis, 4 vel pluribus, divergentibus v. reflexis; ascis saccatis, deorsum latioribus, 40-50 × 8-10, octosporis; sporidiis flavido-viridibus, glanduliformibus, 11-14 × 5-8, sursum monostichis, deorsum distichis, loculo superiore breviore, plerumque indistincte subacuminato.

Hab. in foliis emortuis Fraxini excelsioris in Germania. — Status conidiif. est *Fusicladium Fraxini* Aderh. Sporidiis vix a *Venturia inæquali* (Cke.) distinguenda.

3. **Venturia Tremulæ** Aderh. Hedw. 1897, pag. 81, tab. IV, fig. 3, 2066
Sphærella inæqualis Schrœt. nec Winter. — Peritheciis sparsis, plerumque in pagina inferiore foliorum erumpentibus, globosis, collo brevi, 100-160 μ. diam.; ostiolo plerumque setis longissimis (100 μ.), nigro-brunneis prædito; ascis saccatis, arcuatis, 50-60 × 10-14, octosporis; sporidiis sursum in asco monostichis, deorsum

di-vel tristichis, 14-18 × 6-9, flavido-viridibus, piriformibus v. ovoideis, inæqualiter bicellularibus, septis valde constrictis, loculo superiore majore, interdum subgloboso. 8-10 × 9, loculo inferiore conoideo, rotundato, plerumque 4-6 × 4-5.

Hab. in foliis vivis Populi Tremulæ in Germania. — Status conidiif. est *Fusicladium Tremulæ* Fr.

4. **Venturia? sterilis** Speg. Rev. Agr. y Veter. 1896, pag. 230. — 2067
Maculis nullis; peritheciis hypophyllis rarius amphigenis, sparsis v. plus minusve gregariis, sæpe subiculo albo mucedineo evanescente (an heterogeneo?) insidentibus, superficialibus minutis globosis, 80-120 μ. diam., astomis? sed superne subpapillulatis carnosulis sordide fusco-ochroleucis (ob immaturitatem?) atro-villosis, pilis simplicibus teretibus mollibus patulis sursum attenuatis, 100-250 × 3-5, basi non v. vix incrassatulis apice acutiusculis non v. 1-3-septatis, deorsum olivaceis pellucidis, sursum pallidioribus v. subhyalinis, laxe imperspicueque papillosis; ascis et sporidiis non visis.

Hab. in foliis junioribus adhuc convolutis languidis v. emortuis Sacchari officinarum, prov. Tucuman, Argentina.

LENTOMITA Niessl — Syll. I, p. 584, IX, p. 698.

1. **Lentomita longirostrata** Atk. Bull. Cornell Univ. III, n. 1, 1897, 2068
p. 7. — Peritheciis immersis, epidermidem non elevantibus, membranaceis, 300-350 . diam., in rostrum longum erumpens, vulgo perithecium æquans productis; ascis fusoideo-cylindraceis, gracilibus, apice subincrassatis, stipitatis, 30-40 × 7-9; paraphysibus filiformibus, granulosis; sporidiis octonis, distichis, oblongo-fusoideis, medio 1-septatis, non constrictis, 12-14 × 3.

Hab. in caulibus Ambrosiæ artemisiæfoliæ, Alabama Amer. bor.

GIBBERA Fr. — Syll. I, p. 599, IX, p. 699, XI, p. 306.

1. **Gibbera camerunensis** P. Henn. Fungi camerun. I, in Engl. 2069
Jahrb. XXII, 1895, p. 77. — Stromate atro, effuso, tenui; peritheciis superficialibus, aggregatis, ovoideis v. mammiformibus, verrucosis, rugulosis, atro-carbonaceis, apice obtusiusculis, circiter 1 mm. diam.; ascis non visis; sporidiis oblongis, uniseptatis, ad septum non constrictis, interdum curvulis, guttulatis, flavo-fuscis, 10-14 × 4-7.

Hab. in lignis putridis, Kamerun (Jungner).

MELANCONIS Tul. — Syll. I, p. 602, IX, p. 700.

1. **Melanconis? betulina** Otth, Bern. Mittheil. 1868, p. 43. — Stro- 2070
mate cortici adnato, pulvinato, transversim elongato, ambitu rotundato-sublibero, fusco-brunneo intus pallidiore, grumoso-indurato; disco lanceolato v. elliptico, erumpente; peritheciis demersis, approximatis, subglobosis, membranaceis, fuscis, collis longioribus stroma perforantibus; ostiolis prominulis v. demum rostellatis, nigris; ascis ellipsoideo-clavatis, diaphanis, octosporis; sporidiis distichis v. imbricatis, fumosis, oblongis, obtusissimis, sæpe leniter curvatis, bilocularibus, subconstrictis, primo 2-guttatis, demum intus grumosis, 16-16 × 6; paraphysibus teneris.

Hab. in ramis Betulæ pubescentis, Bremgartenwald Helvetiæ.

2. **Melanconis Hicoriæ** Atk. Bull. Cornell Univ. III, n. 1, 1897, 2071
p. 7. — Stromate minuto; peritheciis monostichis, disco minuto, obscuro; ascis cylindraceo-ellipticis 70-90 × 10-12, paraphysatis; sporidiis distichis, oblongo-cylindraceis, 1-septatis, non constrictis, 15-20 × 4-5, uno loculo interdum angustiore et septo v. plasmate diviso, utrinque appendicula brevi, erecta, 2 × $^1/_2$. metiente præditis.

Hab. in ramis Caryæ albæ, Auburn, Alabama Amer. bor. — *M. Alni* proxima, sed differt sporidiis appendiculisque minoribus.

2. **Melanconis Fagi** Oud. Révis. des Champ. II, 1897, pag. 466. — 2072
Ascis 93 × 18 $^2/_3$; sporidiis 23 $^1/_2$-28 × 7-9: omnia cetera ut in *Melanconi antarctica* Speg.

Hab. in ramis Fagi silvaticæ in Hollandia.

DIAPORTHE Nits. — Syll. I, p. 606, IX, p. 702, XI, p. 307.

1. **Diaporthe** *(Chorostate)* **pycnostoma** Otth, Bern. Mittheil. 1870, p. 99. 2073
— Peritheciis 15-20 in stromate mere corticali pustulato, haud nigrolimitato demersis, subtus strato tenui corticali a ligno discretis, in orbem congestis, ambitu subdecumbentibus; collis convergentibus; ostiolis sat minutis in discum convexum erumpentem arctissime congestis; ascis elongato-subellipsoideis, octosporis; sporidiis ellipsoideis, obtusis, medio subconstrictis at vix conspicue septatis, 4-guttulatis, hyalinis, 16 × 6.

Hab. in ramis corticatis Berberidis vulgaris in Helvetia. A *Diaporthe detrusa* notis datis diversa.

2. **Diaporthe** *(C.)* **Padi** Otth, Bern. Mittheil. 1870, p. 99. — Laxe 2074
gregaria; peritheciis globoso-depressis, paucis subcircinantibus, in-

vicem haud contiguis, passim subsolitariis sub corticis pustula ad lignum demersa v. eo leviter insculpta; collis exilibus convergentibus; ostiolis in disco nigro nitidulo, nunc convexulo, nunc concavo inordinatim plus v. minus distincte prominulis; ascis subfusiformibus basi breviter rostratis, eximie diaphanis, octosporis; sporidiis intricatis v. inordinatis, ellipsoideis v. fere fusiformibus, septo vulgo parum conspicuo bilocularibus, leniter constrictis, 2-4-guttulatis, 14-16 × 5, hyalinis.

Hab. in ramis corticatis Pruni Padi in Helvetia.

3. **Diaporthe** *(C.)* **Woroniniæ** Jacz. Bull. Soc. Imp. des Natur. de Moscou 1896, n. I, p. 72. — Stromatibus sparsis, numerosis, hemisphæricis, epidermidem elevantibus, ostiolis solis erumpentibus; peritheciis numerosis, 12-20 in quoque stromate immersis, subglobosis; ostiolis fasciculatis, cylindraceis, nigris, emergentibus, apice rotundatis; ascis subcylindraceis, 80 × 12, octosporis; sporidiis 1-septatis constrictisque, ellipsoideis, 4-guttulatis, 17 $^1/_2$-18 × 6-6 $^1/_2$. 2075

Hab. in ramis emortuis Sorbi Aucupariæ, Smolensk Rossiæ.

4. **Diaporthe** *(C.)* **Aucupariæ** Hazsl. Math. es term. Közlem. XXV, 2 Budapest, 1892, p. 193, t. XIII, fig. 50. — Pseudostromatica; nidulis usque ad superficiem ligni denigratis, conicis, corticem perforantibus, regulariter 5 perithecia tenentibus; ascis oblongo-clavatis, 70 × 8, sessilibus, 8-sporis; sporidiis distichis, hyalinis, oblongo-fusiformibus, apice rotundatis, bilocularibus, demum 4-locularibus ad septa constrictis. 2076

Hab. in ramis Sorbi Aucupariæ in Hungaria.

5. **Diaporthe** *(C.)* **robusta** Peck, 48 Rep. 1896, p. 16. — Pustulis numerosis, erumpentibus, linea nigra circumscriptis, crustaque nigra tectis; ostiolis modo obscuris, modo prominentibus et distinctis; ascis subfusoideis, 70-85 × 15; sporidiis varie confertis v. biseriatis, oblongo-ellipsoideis, obtusis, medio valde constrictis, 13-18 × 6 $^1/_2$-7 $^1/_2$, cellulis plerumque 1-nucleatis. 2077

Hab. in cortice Aceris saccharini et A. dasycarpi, Gansevoort et Alcove Amer. bor. — Affinis *D. acerinæ*, sed, præcipue, fructificatione majore mox dignoscitur.

6. **Diaporthe** *(C.)* **marchica** Rehm in Sydow, Mycotheca Marchica n. 553. — Stromatibus gregariis, per peridermium erumpentibus, ab eoque cinctis, ellipticis v. conico-truncatis, 1 mm. alt. pustulatim elevatis; disco subplano, atro, ostiolis conicis, brevibus, haud sulcatis plerumque circinatim obsesso, 1-2 mm. diam.; peritheciis 8 monostichis, sub epidermide immutata gregarie nidulantibus, fusce- 2078

scentibus, globosis, cortice interiore longe lateque fusco atrato; ascis ellipticis, teneris, 8-sporis, 40 × 6-7; sporidiis distichis, ellipticis, plerumque rectis, 4-cellularibus, quaque cellula nucleo uno magno præditis, medio haud constrictis, hyalinis, 12-14 × 3.

Hab. in ramis Symphoricarpi racemosæ pr. Berolinum Germaniæ (Sydow).

7. **Diaporthe** *(C.)* **astrostoma** Hazsl. Math. es term. Közlem. XXV, 2079
2 Budapest 1892, p. 203, tab. XIV, fig. 56. — Stromatibus aggregatis; peritheciis sub cortice nigricata evolutis, 2-10 in quoque stromate hemisphærice associatis, ovatis, ostiolis longis in cylindrum sulcatum concretis, corticem perforantibus, supra corticem in forma cylindrica emersis ac in apice cylindri stellatim secedentibus, longis, infundibuliformibus; ascis clavatis, 8-sporis; sporidiis fusiformibus, curvatis, bilocularibus, 12-16 × 2.

Hab. in ramis corticatis Coryli Avellanæ in Hungaria.

8. **Diaporthe** *(C.)* **hyperopta** Nits. in Otth, Bern. Mittheil. 1868, p. 47. 2080
— Peritheciis in stromate flavo a corticis strato supremo formato et peridermii pustula tecto circinatim immersis, collis horizontaliter convergentibus; ostiolis in disco flavo v. demum sordide virenti erumpenti sparsis, prominulis; ascis elongatis subfusiformibus, octosporis; sporidiis distichis v. imbricatis, elongato-fusoideis, passim obtusis, inæqualiter didymis, 18-20 × 4-5, hyalinis v. dilutissime fucatis; paraphysibus nullis.

Hab. in ramis siccis Carpini pr. Bern Helvetiæ. — Var. **tetraspora** Otth, l. c. minor, ascisque tetrasporis. Cum specie.

9. **Diaporthe** *(C.)* **flavo-virens** Otth, Bern. Mittheil. 1878, p. 47. — 2081
Peridermii pustulis deplanatis ambitu colliculosis et fuscidulis; peritheciis subglobosis stromate flavo-virenti circinatim immersis, collis horizontaliter convergentibus; ostiolis in disco pariter flavo-virenti intra ejus marginem circinantibus vix prominulis; ascis subfusiformibus octosporis; sporidiis pallidis fusoideis, bilocularibus in utroque loculo 1-guttulatis, 21-23 × 6; paraphysibus nullis.

Hab. in ramis siccis Coryli, Bern, Helvetia.

10. **Diaporthe** *(Chorostate)* **Bonafidii** Sacc. sp. n. — Peritheciis in soros 2082
minutos gregarios subvalseos, quaterno-senis, cortice immutato minute pustulato immersis, globosis, 300 μ. diam., ostiolis conoideis vix convergentibus, erumpentibus; contextu olivaceo-fuligineo; ascis cylindraceo-fusoideis, 90-100 × 15, fluxilibus, octosporis, lumine apice emarginato-truncato; sporidiis monostichis v. subdistichis oblongo-fusoideis, sæpe leniter curvis, uniseptatis, non constrictis, 24 × 8-9,

grosse 2- rarius 4-guttatis, hyalinis, utrinque appendiculis curvis circ. 5 × 2 auctis.

Hab. in ramis emortuis Ulmi majoris in horto bot. Patavino (a Bonafidio anno 1543, primum concepto et propugnato). — Proxima *D. affini* Sacc. a qua differt præcipue stromate haud lutescente furfuraceo, ostiolis brevibus ceterisque.

11. **Diaporthe** *(C.)* **pinicola** Hazsl. Math. es term. Közlem. XXV, 2083
2 Budapest 1892, p. 200, tab. XIV, fig. 55. — Stromatibus valseis e perithecis paucis formatis; perithecis sub cortice in strato supremo ligni evolutis, globosis, corticem nigricantibus et hemisphærice elevantibus; ostiolis cylindricis brevibus perforantibus; ascis fusiformibus, sessilibus, 8-sporis; sporidiis cylindricis, quadrilocularibus (?), 12-14 μ. longis.

Hab. in corticibus Pini silvestris in Hungaria.

12. **Diaporthe** *(C.)* **Taxi** Oud. et Destrée, Révis. des Champ. tant 2084
supér. qu'infér. trouvés dans les Pays-Bas 1897, p. 251. — Stromatibus irregulariter sparsis, 1 mm. diam., orbicularibus, nigris, depressis, epidermidem perforantibus, centro disco pallido; perithecis 3-5 in quoque stromate, minutissimis, membranaceis; ascis cylindraceis, apice rotundatis, basim versus attenuatis, vix stipitatis, 116 μ. longis; paraphysibus nullis; sporidiis monostichis, hyalinis, ellipticis, bilocularibus, apice rotundatis, angustis, medio constrictis, 18-21 × 9, guttulatis.

Hab. in ramis Taxi baccatæ in Hollandia.

13. **Diaporthe** *(Euporthe)* **cornicola** Ell. et Holw. Bull. Lab. Not. 2085
Hist. Jowa 1895, p. 43. — Perithecis sparsis v. 2-4 valsoideo-aggregatis, globosis, intus albidis v. griseis, $^1/_2$-$^3/_4$ mm. diam., corticolis, basi in lignum penetrantibus; ostiolis breviter cylindraceis vix emergentibus, epidermidem leviter elevantibus; ascis oblongo-fusoideis, p. sp. 40-45 × 8, octosporis; sporidiis oblongis, hyalinis, 4-nucleatis, uniseptatis constrictisque, obtusis, 10–14 × $3^1/_2$-$4^1/_2$.

Hab. in ramis majusculis emortuis Corni paniculatæ, Decorah Jowa, Amer. bor. (Holway).

14. **Diaporthe** *(E.)* **Elæagni** Rehm n. sp. in litt. — Stromatibus 2086
ramos corticatos late ambientibus et vix infuscantibus, intra lignum linea nigra haud limitatis; perithecis gregariis globulosis, ligno infossis, circiter $^1/_2$ mm. latis; ostiolis cylindraceis, obtusis, 6-8 in disco rotundo v. oblongo conjunctis, corticem perforantibus et usque $^1/_2$ mm. longis excedentibus; ascis fusiformibus, octosporis,

50 × 9; sporidiis fusiformibus, medio constrictis, bicellularibus, quaque cellula biguttulata, hyalinis, distichis, 12-14 × 3 1/2.

Hab. in ramis corticatis Elæagni argenteæ ad Berolinum Germaniæ (Sydow).

15. **Diaporthe** *(E.)* **Arctii** (Lasch) Nke.-Syll. I, p. 653. — Var. **Artemisiæ** Rehm, Hedw. 1896, p. (148). — A forma typica recedit stromatibus nulla linea nigra circumscriptis, ascis fusoideis, 50 × 9, octosporis; sporidiis fusoideis, acutis, plerumque rectis, demum 4-cellularibus, 12-14 × 3-3 1/2. 2087

Hab. in caulibus siccis Artemisiæ vulgaris p. Berolinum Germaniæ (Sydow).

16. **Diaporthe** *(E.)* **Phœnicis** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 105. — Stromate latissime effuso, tenui, atro, ambiente; peritheciis solitariis vel 2-3 gregariis, ligno immersis, globosis, 1/4-1/3 mm. latis; ostiolis atris, cylindraceis, 1/3 mm. longis; ascis fusoideis, aparaphysatis, 60-70 × 8-10; sporidiis octonis, fusiformibus, rectis, hyalinis, medio 1-septatis, non constrictis, 4-guttulatis, 13-15 × 3-4. 2088

Hab. in petiolis putridis Phœnicis dactyliferæ in Tunisia.

17. **Diaporthe** *(E.)* **radicina** Ell. et Ev. Americ. Natur. 1897, p. 342. — Peritheciis in parvos greges dispositis, matrice immersis, superficiem nigrificantibus, circiter 1/4 mm. diam.; ostiolis erumpentibus, breve cylindraceis, levibus, obtusis; ascis cylindraceo-fusoideis, 40-45 × 5-6; sporidiis mono- vel distichis, oblongis, 3-4 nucleatis, vix constrictis, 10-12 × 3-4. 2089

Hab. ad basim culmorum Phlei pratensis pr. Newfield Amer. bor.

18. **Diaporthe** *(E.)* **Bambusæ** Pat. Journ. de Bot. 1897, p. 368. — Peritheciis omnino ligno decolorato infossis, nulla linea nigra circumscriptis, solitariis, globosis v. ovalibus, 350 × 250 μ., sensim in collum breve papilliforme in centro disci stromatici nigri v. rubro-brunnei situm attenuatis; ascis cylindraceis, apice obtusis, octosporis, 130 × 10; sporidiis distichis, elongato-ellipticis, sæpe utrinque acutatis, medio 1-septatis, non constrictis, eguttatis, 23 × 5, hyalinis, area hyalina fugaci cinctis. 2090

Hab. in culmis siccis Bambusæ, Tonkin.

19. **Diaporthe** *(Tetrastaga)* **lirellæformis** Pat. Bull. Soc. Mycol. de France 1897, p. 212. — Peritheciis subcutaneis, globosis v. ellipticis, trinis v. quaternis consociatis, minutis, ostiolo prominente; ascis aparaphysatis, 80 × 6-8; sporidiis hyalinis, rectis v. curvulis, fusoideis, utrinque acutis, uniseptatis, medio constrictis, 4-guttulatis. 2091

Hab. in caulibus siccis Phacæ bæticæ in Algeria.

20. **Diaporthe** *(T.)* **Camelliæ** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4, ser. VIII, 1896, Microm. III, p. 31 et Rev. Mycol. 1896, p. 158, tab. CLXVI, fig. 3. — Peritheciis sparsis v. subgregariis, prominulis, cortice immutato immersis, basi strato stromatico nigro exiguo limitatis, globosis, nigris, ostiolo conoideo pertusis, circit. $^1/_3$ mm. diam.; ascis clavatis, basi longe attenuato-stipitatis, octosporis, 50-70 × 9-10; sporidiis subdistichis, cylindraceo-fusoideis, obtusiusculis, constrictis, 1-septatis, 4-guttulatis, 12-14 × 4-4 $^1/_2$, utrinque appendiculatis. 2092

Hab. in ramulis corticatis Camelliæ japonicæ, in horto botanico Senensi Italiæ.

21. **Diaporthe** (*T.*) **Hydrangeæ** Ell. et Ev. Field. Columb. Mus. IX, 1896, p. 140. — Peritheciis sparsis, ovato-globosis, 350-380 μ. diam., substrato omnino innatis, sed superficiem non mutantibus, ostiolis firmis, erumpentibus, breviter cylindraceis v. conico-cylindraceis, apice papilliformibus; ascis oblongo-cylindraceis, 50-60 × 8, octosporis, obscure paraphysatis; sporidiis biseriatis, oblongo-ellipticis, hyalinis, uniseptatis, leniter constrictis, 12-15 × 3-4, utrinque subacutis. 2093

Hab. in caulibus mortuis Hydrangeæ arborescentis in W. Virginia Amer. bor. (Nuttall).

22. **Diaporthe** (*T.*) **Flageoletiana** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 65, tab. V, fig. 6. — Peritheciis gregariis v. sparsis, cortice immutato immersis, linea stromatica nulla limitatis, globosis, 0,5 mm. diam., ostiolo exiguo vix erumpente; ascis fusoideis, 45 × 6, aparaphysatis, apice bifoveolatis, 8-sporis; sporidiis fusoideis, utrinque acutiusculis, 12-14 × 3, tenuiter uniseptatis, vix constrictis, plasmate bipartito, hyalinis. 2094

Hab. in ramis corticatis emortuis Calycanthi floridi pr. Rigny Galliæ. — Affinis *D. oligocarpæ*, sed differt linea stromatica nulla etc.

23. **Diaporthe** (*T.*) **macrostalagmia** F. Tassi, Atti d. R. Accad. dei Fisiocr. Siena, ser. IV, vol. VIII, 1897, p. 3, fig. 1. — Stromate late effuso, ramos ramulosque longe et late ambiente, strato extimo nigricante; peritheciis minutis, globosis vel sæpe basi applanatis vel angulosis, irregulariter sparsis gregariisve, peridermio immutato sed subprominulo tectis, tarde vetusto cortice erumpentibus lignoque nigrificato insidentibus; ostiolis abbreviatis; ascis cylindricis v. subcylindricis, aparaphysatis, intus apice 1-foveolatis, 2095

basi attenuato-stipitatis, membrana plus minusve crassiuscula instructis, 65-70 × 12-14, octosporis; sporidiis distichis, fusoideis, medio constricto-1-septatis, 16-18 × 4-5 $^1/_2$, exappendiculatis, guttulis magnis binis in singulis loculis ornatis.

Hab. in ramis ramulisve Escalloniæ montevidensis, in horto bot. Senensi Italia bor.

24. **Diaporthe** (*T.*) **aorista** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 2096
p. 132. — Peritheciis sparsis v. gregariis sæpe binis trinis subconfluentibus, interdum subseriatim dispositis cortice immutato leniter immersis, nulla linea nigra circumscriptis, epidermidem non decoloratam leniter elevantibus, globosis, minutis, 300–350 μ.; ostiolis exsertis, asperulis, conico-cylindraceis, brevibus; ascis oblongo-cylindraceis, p. sp. 35-45 × 8; sporidiis distichis, oblongis, 1-septatis, leniter constrictis, 2-4-nucleatis, obtusis, hyalinis, 11-13 × 4-4 $^1/_2$.

Hab. in caulibus emortuis Solidaginis spec., New York Amer. bor.

25. **Diaporthe** (*T.*) **ligustrina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 2097
p. 132. — Peritheciis dense sparsis cortice immutato immersis, $^1/_3$ mm. diam.; ostiolis subconicis, tuberculiformibus v. subglobosis, sæpe in rimis corticis longitudinalibus seriatim dispositis, distincte erumpentibus ideoque perithecia superficialia simulantibus; ascis clavato-oblongis, 50–60 × 8-10; sporidiis subdistichis, initio fusoideis, maturis autem utrinque obtuso-rotundatis medioque constrictis, 10 × 4 vel 9-11 × 3 $^1/_2$-4 $^1/_2$.

Hab. in ramis corticatis Ligustri in America boreali.

26. **Diaporthe** (*T.*) **Mühlenbeckiæ** F. Tassi, Atti R. Acc. dei Fisiocr. 2098
Siena, 4 ser. VIII, 1896, (Microm. III, p. 3), et Rev. Mycol. 1896, p. 158, tab. CLXVI, fig. 4. — Stromate effuso, plerumque substrato nigricante ambiente; peritheciis mediocribus, globulosis v. basi paullo applanatis, nigris, pertusis, $^1/_3$-$^1/_4$ mm. diam.; ascis subcylindricis, membrana statim deliquescente, octosporis, 50-60 × 7-8; sporidiis distichis, fusoideis, bicellularibus, medio constrictis, 4-guttulatis, hyalinis, 10-12 × 2-2 $^1/_2$; spermogoniis phomatoideis; spermatiis ellipsoideis, continuis, primum breviter stipitatis, 2-3 × 1 $^1/_2$-2.

Hab. in ramulis emortuis Muehlenbeckiæ complexæ in horto botanico Senensi Italiæ. — Ad statum spermogonicum qui invenitur una cum statu ascophoro, pertinet probabiliter *Phoma Muehlenbeckiæ* Cke. et Mass.

27. **Diaporthe** (*T.*) **Otthii** Nits. in Otth, Bern. Mittheil. 1868, p. 45. 2099
— Peritheciis subglobosis, membranaceis inter corticis fibras nidu-

lantibus, sæpe ad lignum usque demersis, collis convergentibus, ostiolis subincrassatis, confertis, per peridermium erumpentibus, prominulis, nucleo cinereo, gelatinoso; ascis eximie diaphanis subfusiformibus, octosporis; sporidiis distichis aut subimbricatis, 18 × 5-6, paraphysibus non distinctis; linea nigra interiore vulgo plura specimina circumscribenti, in peridermio neutiquam conspicua.

Hab. in ramis emortuis Ulmi, Bern, Helvetia. — Affinis dicitur *D. controversæ*.

28. **Diaporthe** (*T.*) **cupulata** Berl. et Destrée, Supplém. au Catal. des Champ. des environs de la Haye, 1897, p. 7. — Stromate nullo manifesto; peritheciis crebre sparsis v. subgregariis, cupulatis, ostiolo minuto peridermio circa ostiolum nigricante adhærentibus; ascis longiuscule stipitatis, clavatis, parte sporif. 45-50 × 10-12, octosporis; sporidiis cylindraceo-fusoideis, rectis v. curvulis, ad medium pseudouniseptatis, vix constrictis, 4-guttatis, 18-20 × 4-5, ex hyalino viridulis. 2100

Hab. in ramulis siccis Populi balsamiferæ in Hollandia. — Peritheciis eximie cupulatis *Ditopellam fusisporam* in mentem revocat.

29. **Diaporthe** (*T.*) **javanica** Penz. et Sacc. Malpighia XI, 1897, p. 503. — Effusa, maculas sinuosas fuscas in matricis superficie efformans, intus nigro-circumscripta; peritheciis immersis, gregariis, globulosis, atris, 0,3 mm. d., ostiolis punctiformibus, vix emergentibus; ascis fusoideis, sessilibus, 30-35 × 6, octosporis, aparaphysatis; sporidiis distichis v. oblique monostichis, oblongis, utrinque obtusulis, 10-12 × 4-5, medio constrictis obsoleteque septatis, 4-guttatis, hyalinis. 2101

Hab. in caule emortuo Elettariæ, Tjibodas, ins. Java. — Affinis *D. gloriosæ* S. et Sp., sed præsens potius *Tetrastaga*, quam *Eaporthe*.

30. **Diaporthe Tecomæ** Sacc. et Syd. Sic nominanda est *Diaporthe interrupta* Niessl in Syll. IX, p. 718, quum exstet anterior *D. interrupta* (Mont.) Sacc. in Syll. I, p. 617.

31. **Diaporthe Drimydis** Sacc. et Syd. Sic nominanda est *Diaporthe Winteri* Speg. in Syll. IX, p. 720, quum exstet anterior *D. Winteri* J. Kze. in Syll. I, p. 658.

ENDOTHIA Fr. — Syll. I, p. 600, IX, 700.

1. **Endothia Nitschkei** Otth, Bern. Mittheil. 1868, p. 48. — Peritheciis 8-10 in cortice immersis, discretis; collis erecto-conniventibus, 2102

stroma spermogonicum grumosum fulvo-ferrugineum, tuberculiforme erumpens perfodientibus, ostiolis sparsis, atris, exsertis, subcylindricis, nucleo cinereo-gelatinoso; ascis clavatis, octosporis; sporidiis oblongis, obtusis, bilocularibus ad septum vix conspicuum quandoque leniter constrictis, 12–16 × 4-5; paraphysibus nullis; spermogoniis sinuosis, membranaceis, fuscis, peripheriis; sporulis (spermatiis) cylindraceis, vix curvulis, 5 × 1, hyalinis, demum cirrose expulsis.

Hab. in ramis emortuis Tiliæ grandifoliæ pr. Bern, Helvetia.

Sect. 5. Phæodidymæ.

TICHOTHECIUM Flot. — Syll. IX, p. 723.

1. **Tichothecium Vermicularіæ** (Linds.) Jacz. Bull. Soc. Myc. de Fr. 1896, p. 93. *Microthelia vermicularia* Linds. N. Z. Lich. and Fungi p. 441. — Peritheciis immersis, punctiformibus, nigris, non papillatis; ascis ovoideis, sessilibus, irregularibus; sporidiis octonis, ovoideis, oblongis, brunneis, bicellularibus, ad septum valde constrictis, 8-11 × 3-4. 2103

Hab. in thallo Thamnoliæ vermicularіæ in Helvetia.

DIDYMOSPHÆRIA Fuck. — Syll. I, p. 701, IX, p. 728, XI, p. 312.

1. **Didymosphæria Thalictri** E. et D. Proc. of the Canad. Inst. 1897, p. 89. — Peritheciis gregariis depresse globosis, 200-250 μ. diam., per epidermidem atratam ostiolo papillato deciduo vix pertusam conspicuis; ascis oblongis, breve papillatis, paraphysatis, 8-sporis; sporidiis distichis, fusoideo-oblongis, subhyalinis, 4-nucleatis, demum 1-septatis, constrictulis, subinæquilateris v. leviter curvis, pallide brunneis, 13–15 × $3^1/_2$. 2104

Hab. in caulibus emortuis Thalictri polygami, London Canada Amer. bor.

2. **Didymosphæria epidermidis** (Fr.) Fkl.-Sacc. Syll. I, p. 709. — **Var. macrospora** Eliasson, Fungi Upsalienses in Bih. K. Sv. Vet.-Akad. Handl. Bd. XXII, Afd. III, n. 12, 1897, p. 10. — Ascis 70-85 × 12-13; sporidiis 23-30 × 6-9. 2105

Hab. in ramis vivis Berberidis vulgaris in Suecia.

3. **Didymosphæria Staphyleæ** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 126, tab. VIII, fig. 34. — Peritheciis dense aggregatis, globosis, rostratis, rostro sæpe diametrum perithecii 2106

superante, epidermidem perforantibus, solummodo ascis repletis; ascis clavatis breviter stipitatis, 8-sporis; sporidiis distichis, hyalinis, ovalibus, ad septum constrictis, loculis sæpe secedentibus, 20 × 8.

Hab. in ramulis Staphyleæ pinnatæ, in Hungaria.

4. **Didymosphæria Cerasorum** (Fr.) Sacc.-Syll. I, p. 705. — ***D. padina** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 66, tab. V, fig. 4. — Peritheciis obtusis, vix 0,5 mm. diam., nigris, subcutaneo-erumpentibus; sporidiis fuligineis, monostichis, elliptico-fusoideis, obtusiusculis, 24-26 × 9-11, ad septum non vel vix constrictis; ascis 140 × 12. 2107

Hab. in ramis Pruni Padi pr. Rigny Galliæ (Flageolet). — A typo recedit præsertim sporidiis paullo majoribus et obtusioribus.

5. **Didymosphæria Aucupariæ** (Plowr.) Oud. Révis. des Champ. II, 1897, p. 466, *Sphærella Aucupariæ* Plowr. in Sphær. brit. II, n. 92. — Ascis cylindraceis, basi paulum dilatatis, octosporis; sporidiis monostichis v. apice monostichis et inferne sine ordine dispositis, ellipticis, utrinque rotundatis, griseolis, 9-10 × 4 $^2/_3$-5, apicem versus uniseptatis; paraphysibus filiformibus, numerosis. 2108

Hab. in foliis Sorbi Aucupariæ in Hollandia et Anglia.

6. **Didymosphæria myrticola** Casali, Malpighia 1897, p. 85. — Peritheciis sparsis, globoso-depressis, vix prominulis, coriaceis, papillatis, 190 × 200 μ., ostiolo minutissimo; ascis cylindraceis, paraphysatis, octosporis; sporidiis monostichis, ovatis, utrinque obtusis, olivaceis v. fuligineis, 2-guttulatis, 7-9 × 4-6. 2109

Hab. in ramis emortuis Myrti communis in Italia centr.

7. **Didymosphæria major** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 130. — Gregaria, superficie atrata ligni tecta, pustulas formans, quæ ostiolo papilliformi perforantur; peritheciis ligno immutato immersis, ca. 300 μ. diam.; ascis cylindraceis, 90-105 × 10-12, breviter stipitatis, paraphysatis, octosporis; sporidiis monostichis, plerumque obliquis, oblongo-ellipticis, uniseptatis, non vel vix constrictis, pallide fuscis, obtusis, 12-18 × 7-8. 2110

Hab. in ligno decorticato Rhois glabræ in Kansas Amer. bor. (Bartholomew). — A *Didymosphæria rhoina* Ell. et Ev. differt ascis et sporidiis majoribus.

8. **Didymosphæria rhoina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 130. — Peritheciis gregariis tectis, ovato-globosis, 350-450 μ. diam., ostiolo conico-papilliformi erumpente ornatis; ascis cylindraceis, breviter stipitatis, paraphysatis, 60-70 × 6; sporidiis monostichis, ellipticis, pallide brunneis, vix constrictis, 7-8 × 4-5. 2111

Hab. in ligno vetusto decorticatoque Rhois glabræ, Kansas Amer. bor. (Bartholomew).

9. **Didymosphæria Thapsi** Vestergr. Bihang. K. Svenska V. A. Handl. XXII, Afd. III, n. 6, 1896, p. 13. — Peritheciis epiphyllis, plus minusve immersis, sparsis, rugosiusculis, sphæroideis, textura parenchymatica, ostiolo papillæformi præditis, ca. 150 μ. diam., membranaceis, nigris; hyphis brunneis, ramosis, plerumque cellulis elongatis, ad perithecia autem subisodiametricis, 4-5 μ. crassis compositis; ascis cylindraceis v. clavulatis, vertice incrassato, rotundato præditis, brevissime pedicellatis, 53-65 × 7-9; paraphysibus filiformibus, ascos superantibus; sporidiis octonis, typice distichis, fusoideis, rectis v. curvatis, prope medium constricte uniseptatis, loculis subconicis, loculo superiore deorsum crassiore, 16-20 × 3-4, 4-guttulatis, fuligineis. 2112

Hab. in pagina superiore foliorum languidorum Verbasci Thapsi in Gotlandia Sueciæ.

10. **Didymosphæria Tecomæ** Cke.-Sacc. Syll. XI, p. 313. — Var. **monosticha** F. Tassi, Bull. del Lab. Bot. de R. Univ. Siena, 1898, fasc. I, p. 6, tab. IX, fig. 3. — Peritheciis innatis, subglobosis, atris, sparsis, 80-100 μ. diam., papillatis; ascis clavatis, 80-90 × 6-8, octosporis, paraphysibus æquilongis ramulosis fultis; sporidiis ovoideis, fuligineis, rectis, imbricatis v. oblique uniseriatis. 2113

Hab. in ramis putrescentibus Tecomæ radicantis in horto bot. Senensi, Italia centr.

11. **Didymosphæria Celtidis** Ell. et Ev. Proc. Acad. Philad. 1895, p. 421. — Peritheciis dense sparsis, globosis, minutis, circiter 300 μ. diam., epidermide in pustulas elevata et ostiolo papilliformi pertusa tectis; ascis ventricoso-oblongis, sessilibus, 55-60 × 18-25, obscure paraphysatis, octosporis; sporidiis confertis, distichis, obovatis, uniseptatis leniter constrictis, brunneis, 20 × 10, interdum etiam ellipticis et 20-25 × 10-12 metientibus. 2114

Hab. in ramis emortuis Celtidis occidentalis, Kansas, Amer. bor. (Bartholomew). — Asci mox evanidi, ideoque species *Diplodiam* in mentem revocat.

12. **Didymosphæria decolorans** Rehm in Ascomycetes exs. fasc. XXIV n. 1239, Hedw. 1898, p. (143). — Peritheciis in maculis corticis ellipticis usque ad 5 cm. longis et 1 ½ cm. latis, flavo-fuscis epidermidi tenuissimæ immersis, dein per eam rimose fissam gregarie prorumpentibus, dimidiatis, nigris, glabris, poro minutissimo pertusis, senilibus deformatis, 300-400 μ. diam.; ascis cylindraceis, apice 2115

rotundatis, 60 × 7–8, octosporis; sporidiis monostichis, ellipticis, rotundatis, bicellularibus, utraque cellula guttula oleosa magna prædita, haud medio constrictis, fuscidulis, 7–10 × $3\frac{1}{2}$–$4\frac{1}{2}$; paraphysibus filiformibus, hyalinis.

Hab. in ramis Salicis capreæ exsiccatis, Oberammergau reg. subalpinæ Bavariæ (Schnabl).

13. **Didymosphæria impar** Penz. et Sacc. Malpighia XI, 1897, p. 396. 2116
— Peritheciis gregariis, amphigenis, innatis, globoso-depressis, 110-130 μ. diam., poro pertusis, atris, membranaceis; ascis oblongo-clavatis, brevissime noduloso-stipitatis, 60-65 × 15; paraphysibus articulatis spuriis?); sporidiis distichis v. oblique monostichis, oblongo-clavatis, constricto-1-septatis, loculo superiore crassiore obtusiore, 22–24 × 7-8, fuligineis, muco tenuissimo hyalino (constanter?) obductis.

Hab. in foliis morientibus Curculiginis latifoliæ, Java,

14. **Didymosphæria sphærophora** Ell. et Ev. Bull. Torr. Bot. Club. 2117
1895, p. 439. — Peritheciis sparsis, innatis, 1 mm. diam., demum plus minus distincte collabentibus, apice erumpentibus; ostiolis latis, papilliformibus; ascis cylindraceis, stipitatis, paraphysatis, 8-sporis, p. sp. 100-110 × 10-12; sporidiis monostichis, oblongis, uniseptatis, obscure brunneis, constrictis, plus minus asperis, 16-20 × 6–8, utrinque appendicula depresso-globosa, luteolo-hyalina, præditis.

Hab. ad folia Agaves spec., Mexico (Egeling).

15. **Didymosphæria Festucæ** Wegelin, Mitth. d. Thurgauer Naturf. 2118
Ges. Heft XII, 1896, p. 2, extr. tab. II, fig. 1-3. — Peritheciis in maculis nigris immersis, 250-400 × 200-300, ellipticis, nigris, ostiolo vix prominulo; paraphysibus numerosis, filiformibus; ascis cylindraceo-clavatis, 8-sporis, subsessilibus, in juventute 100-110 × 15-17, in maturitate 145 × 17-18; sporidiis distichis, clavato-fusiformibus, attenuatis, inæqualiter bicellularibus, ad septum non constrictis, melleis, 35-46 × 8-11, plasmate granuloso repletis.

Hab. in vaginis foliorum Festucæ, Helvetia.

16. **Didymosphæria Bambusæ** Roll. Bull. Soc. Myc. de Fr. 1896, p. 4, 2119
tab. I, fig. 9. — Peritheciis nigris, sparsis, erumpentibus aut epidermide velatis, lenticulari-subglobosis v. depressis, ostiolatis, circ. $\frac{1}{2}$ mm. latis; ascis cylindraceo-clavatis, attenuato-stipitatis, 80-100 × 10, octosporis; sporidiis monostichis, ovoideo-oblongis, medio 1-septatis, non vel constrictis, loculis uni-vel pluri-guttatis, brunneo-fuliginosis, 15-20 × 5; paraphysibus angustis, numerosis, ramulosis.

Hab. ad corticem Bambusæ, Golfe Juan Galliæ. — A *D. donacina* præcipue differt stipitibus ascorum brevibus, sporidiis monostichis majoribus.

17. **Didymosphæria fusispora** Penz. et Sacc. Malpighia XI, 1897, p. 395. — Peritheciis gregariis, innatis, semierumpentibus, globoso-conicis, 0,3 mm. diam., nigris, glabris, matrice infuscata cinctis; ascis fusoideis, breviter stipitatis, apice acutulis, 60-75 × 14-16, filiformi-paraphysatis, 8-sporis; sporidiis mono-v. distichis, fusoideis, utrinque acutiusculis, curvulis, 25-30 × 6 ½-8, uniseptatis, non v. vix constrictis, 2-4-guttatis, fuligineis. 2120

Hab. in culmis Bambusæ, Java.

18. **Didymosphæria minutella** Penz. et Sacc. Malpighia XI, 1897, p. 396. — Peritheciis seriatis, innatis, peridermio conspicue longe et nitide atrato, tumidulo tectis, globoso-depressis, 0,2 mm. latis, ostiolo vix manifesto; ascis cylindraceis, subsessilibus, apice rotundatis, filiformi-paraphysatis, 8-sporis, 50-60 × 5; sporidiis monostichis, obovatis, 1-septatis, non constrictis, 8-10 × 3, olivaceo-fuligineis. 2121

Hab. in culmis emortuis Bambusæ, Java. – Videtur affinis *D. graminicolæ* Ell. et Ev. et *D. minutæ* Niessl.

MASSARIELLA Speg. — Syll. I, p. 716, IX, p. 739, XI, p. 314.

1. **Massariella Spartii** Casali, Malpighia 1897, p. 86. — Peritheciis sparsis, globosis, immersis, ostiolo brevi, cuticulam perforante, vix prominulo; ascis clavatis, paraphysatis, 100 × 10; sporidiis monostichis, ellipsoideis, utrinque rotundatis, biseptatis, flavescentibus, muco hyalino obvolutis, 12-14 × 8. 2122

Hab. in ramulis viridibus Spartii juncei pr. Romam Italiæ.

2. **Massariella Lycii** Hazsl. Math. es term. Közlem. XXV, 2 Budapest, 1892, p. 172, t. XII, f. 48. — Peritheciis sparsis, innatis, globosis, ostiolis peridermium perforantibus; ascis cylindricis, 140-180 × 30-35, breviter stipitatis longeque paraphysatis, 8-sporis.; sporidiis mono- vel distichis ovatis, utrinque attenuatis, 1-septatis constrictisque, dilute flavido-brunneis, 30-45 × 10. 2123

Hab. in ramis Lycii barbari, in Hungaria.

AMPHISPHÆRIA Ces. et De Not. — Syll. I, p. 718, IX, p. 741, XI, p. 315.

1. **Amphisphæria separans** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 130. — Peritheciis subgregariis ovato-conicis, griseolo-brunneis, 2124

$^1/_2$ mm. circiter diam., 1 mm. altis, basi ligno leniter immersis; ostiolo breve cylindraceo, nigro, aspero, obtuso; ascis cylindraceis, 110 × 12, octosporis, paraphysatis; sporidiis ellipticis utrinque attenuatis, sed obtusis, brunneis, 1-septatis, ad septum profunde constrictis ibique facile secedentibus, 20-23 × 9-11.

Hab. in ligno vetusto Gossypii, Kansas Amer bor.

2. **Amphisphæria melantera** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 2125
p. 278; Bull. Torr. Bot. Cl. 1898, p. 513. — Peritheciis erumpenti-superficialibus ovato-globosis, nigris, 400 μ. diam., sed magnitudine valde ludentibus, sæpe depressis, interdum distincte collapsis, sparsis, ostiolo obscuro demum perforato; ascis oblongo-cylindraceis, subsessilibus, 100–110 × 20–22, paraphysibus copiosis filiformibus obvallatis; sporidiis distichis, oblongis, uniseptatis, ad septum profunde constrictis ibique facile secedentibus, loculo inferiore plerumque angustiore, brunneis, 20-35 × 12-15.

Hab. in cortice Quercus undulatæ, Colorado Amer. bor.

3. **Amphisphæria salicicola** Allesch. Ber. Bayr. Bot. Ges. V, 1897, 2126
p. 13. — Peritheciis subcastaneo-erumpentibus, dense gregariis v. cæspitosis in macula pallida, globoso-depressis, nitido-atris, $^1/_{10}$-$^1/_8$ mm. diam.; ascis cylindraceis, octosporis, 60-80 × 7-8; sporidiis oblique monostichis, ovoideis v. oblongis, 1-septatis, biguttulatis, utrinque obtusis v. rotundatis, 8-10 × 4-5, viride brunneis; paraphysibus filiformibus, quam asci, longioribus, ca. 1 μ. crassis.

Hab. in ramulis Salicis Capreæ, in Bavaria super. (Schnabl).

4. **Amphisphæria callicarpa** Penz. et Sacc. Malpighia XI, 1897, p. 397. 2127
— Peritheciis laxe gregariis, ligno atrato basi applanata superficialibus, 1-1,3 mm. latis, alte semiglobosis, exquisite tornatis, acute papillatis, levibus, nigris, contextu crasse pachydermatico; ascis clavatis, longe tenuiter stipitatis (immaturis visis); sporidiis fusoideis, utrinque acutiusculis, 15-16 × 3-4, constricto-1-septatis, rectis, fuligineis.

Hab. in ligno putrescente, Java. — Præcipue peritheciis duplo majoribus, regulariter tornatis ab *A. macropoda* Sacc. statim distinguenda.

5. **Amphisphæria obscura** Sacc. Malpighia XI, 1897, pag. 288. — 2128
Peritheciis sparsis, $^1/_2$-$^3/_4$ mm. diam., basi adnata superficialibus, globoso-hemisphæricis, nigris, papillatis, tenui-carbonaceis, glabris; ascis cylindraceis, octosporis, breve nodoso-stipitatis, 120–140 × 12, apice rotundatis; paraphysibus filiformibus, tortuosis; sporidiis monostichis v. partim distichis, ovato-clavatis, constricto-unisep-

tatis, 18-22 × 6-8, rectis curvulisve, olivaceo-fuligineis, strato mucoso, hyalino, 1 μ. crasso obvolutis, loculo superiore crassiore obtusiore.

Hab. in ramis putridis, Valsesia, Italia (Carestia).

6. **Amphisphæria nobilis** (Schw.) Ellis, Proc. Acad. Philad. 1895, p. 26, 2129
Sphæria nobilis Schw. in herb. — Peritheciis superficialibus, ovato-globosis, nigris, 350-400 μ. diam., glabris, ostiolo acuto papilliformi; ascis clavato-cylindraceis, breve stipitatis, paraphysatis, 75-80 × 12-15, octosporis; sporidiis confertis, biseriatis, oblongo-fusoideis, leniter curvulis, obtusis, brunneis, uniseptatis, vix constrictis, omnibus cellulis nucleo magno præditis, 18-22 × 6-7.

Hab. ad ligna putrida, Salem, Amer. bor.

7. **Amphisphæria pilosella** Ell. et Ev. Proc. Acad. Philad. 1895, p. 418. 2130
— Peritheciis gregariis, superficialibus, subcarbonaceis, minutis, 200-250 μ. diam., subglobosis, supra subcollabentibus, primo pilis brevibus, pallidis, gracilibus vestitis; ostiolo papilliformi, minuto sed distincto; ascis cylindraceis, 65-70 × 6, in stipitem 25-30 μ. longum attenuatis, p. sp. 55–60 μ., indistincte paraphysatis, 6-8-sporis; sporidiis monostichis, oblongo-ellipticis, uniseptatis, non constrictis, pallide brunneis, 7-10 × 3 1/2-4.

Hab. in ligno dejecto arborum, Ohio, Amer. bor. (Morgan). — *A. oronoensi* affinis, differt peritheciis majoribus, pilosis, subcollabentibus et sporidiis submajoribus.

8. **Amphisphæria Papilla** (Schw.) Ellis, Proc. Acad. Philad. 1895, 2131
p. 23, *Sphæria Papilla* Schw. Syn. Car. n. 159. — Peritheciis conico-hemisphæricis, basi ligno leviter immersis, 3/4-1 mm. diam., ostiolo distincto conico-papilliformi; ascis cylindraceis, breve stipitatis, paraphysatis, p. sp. 100-120 × 12-15, brunneis, uniseptatis, leniter constrictis, 25-32 × 8-12.

Hab. in ligno putrido, Bethlehem, Amer. bor.

9. **Amphisphæria rhodella** Pat. Bull. Soc. Myc. de Fr. 1895, p. 225. 2132
— Peritheciis atris, superficialibus, laxe gregariis, globosis, glabris, 1/2 mm. diam., ostiolo punctiformi rubescente donatis; ascis cylindraceis, 100 × 10, 8-sporis, filiformi-paraphysatis; sporidiis distichis, elongatis, fusoideis, medio 1-septatis constrictisque, fuligineis, 1-2-guttulatis, 40-43 × 10.

Hab. in cortice vetusto in Æquatoria (v. Lagerheim). — *A. australi* Speg. affinis.

10. **Amphisphæria confertissima** Ell. et Ev. Proc. Acad. Philad. 1895, 2133
p. 418. — Peritheciis superficialibus, subglobosis, 210-220 μ. diam.,

leviter papillato-asperulis, nigris confertissimis, in maculis oblongis $^1/_2$-1 cm. longis et 2-3 mm. latis sæpe confluentibus sitis; ostiolo papilliformi, nigro; ascis cylindraceis, breve stipitatis, p. sp. 55-60 × 8, paraphysatis, octosporis; sporidiis oblique monostichis, ovato-ellipticis, brunneis, uniseptatis, constrictis, 9-11 × 5-6.

Hab. in ligno aeri diu exposito, Ohio, Amer. bor. (Morgan). — *A. Spegazziniana* proxima, sed differt sporidiis.

11. **Amphisphæria Phœnicis** Pat. Enum. Champ. Tunisie, 1892, p. 12, tab. II, fig. 7. — Peritheciis superficialibus, nigris, gregariis v. sparsis, subglobosis, apice papillatis, $^1/_3$-$^3/_4$ mm. diam., intus albis; ascis octosporis; sporidiis distichis, brunneis, fuliginosis, fusoideis, uniseptatis, ad septum constrictis, utrinque obtusis, rectis v. vix curvulis, quoque loculo uniguttulato, 26-32 × 9-10. 2134

Hab. ad petiolos putridos Phœnicis dactyliferæ in Tunisia.

12. **Amphisphæria Junci** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 106. — Peritheciis sparsis, atris, basi insculptis, $^1/_3$-$^1/_2$ mm. latis, conoideis, apice ostiolo pertusis, contextu atro, carbonaceo; ascis octosporis; sporidiis atris, cohærentibus, citriformibus, utrinque mucronatis, medio septatis constrictisque, opacis, magnis, 65-78 × 30-40. 2135

Hab. in rhizomatibus Junci acuti in Tunisia.

DELITSCHIA Auersw. — Syll. I, p. 732, IX, p. 747, XI, p. 317.

1. **Delitschia insignis** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 13, t. A. f. 8. — Peritheciis immersis, globosis, glabris, coriaceis, $^1/_2$-$^2/_3$ mm., ostiolo cylindrico, nigro, robusto, longiusculo; ascis primo teretibus, apice rotundatis, dein fusoideo-cylindraceis, pedicellatis, 8-sporis, p. s. 180-200 × 30, stipite 30-50 μ. longo; paraphysibus filiformibus, septatis, asco longioribus; sporidiis biseriatis, oblongis, apicibus obtuse rotundatis, olivaceo-fuscis, medio constricto-septatis, quaque cellula ovato-elliptica, nonnunquam ad quartam partem inferiorem tenuiter (spurie?) septata, sine zona mucosa sed utroque fine caudam hyalinam, flexilem, gerentibus, 40-60 × 15. 2136

Hab. ad fimum vaccinum pr. Liège Belgii.

NEOPECKIA Sacc. (1893). — Syll. IX, p. 749, XI, 317.

1. **Neopeckia pumila** Penz. et Sacc. Malpighia XI, 1897, p. 396. — Subiculo late effuso, velutino, atro, e setulis subsimplicibus, septatis, fuligineis formato; peritheciis globoso-conoideis, breve papillatis, subiculo interspersis, 200-300 μ. diam., adultis subcalvis et late 2137

apertis, contextu dense atro-fuligineo; ascis cylindraceis, breve stipitatis, apice rotundatis et bi-foveolatis, obsolete paraphysatis, 8-sporis, 100-110 × 8-9; sporidiis monostichis, elliptico-fusoideis, utrinque acutulis, diu continuis, dein 1-septatis, non constrictis, fuligineis, 16-18 × 6.

Hab. in culmis (vel caulibus?) crassioribus in horto bot. Bogoriensi, Java.

BHYNCHOSTOMA Karst. — Syll. I, p. 730, IX, p. 750, XI, p. 317.

1. **Rhynchostoma Biolleyana** Bomm. et Rouss. Bull. Socc. bot. Belg. 2138
1896, p. 159. — Peritheciis sparsis, superficialibus, atris, globosis v. subglobosis, rostro filiformi longissimo, flexuoso, contextu fibroso, 126-135 μ. longis; ascis cylindraceis, sessilibus, 8-sporis, membrana tenuissima, fugaci, 43-64 × 7,2; paraphysibus guttulatis ad basim dilatatis; ascis longioribus (90 μ.); sporidiis monostichis v. subdistichis, fuligineis, cylindraceis, initio continuis, tarde uniseptatis, 14.4 × 3,6.

Hab. in foliis caulibusque Diplostephii rupestris, Costa-Rica.

2. **Rhynchostoma rhytidosporum** Penz. et Sacc. Malpighia XI, 1897, 2139
p. 408. — Peritheciis laxe gregariis, innato-erumpentibus, 0,5-0,7 mm. diam., globoso-conicis, in ostiolum cylindricum rigidum rectum, $1\,^1/_2$-2 mm. long., $^1/_4$ mm. crass., sensim abeuntibus, aterrimis, æque ac ostiolo; ascis fusoideis, subsessilibus, utrinque acutiusculis, 150-160 × 15, octosporis, copiose filiformi-paraphysatis; sporidiis distichis v. subtristichis, fusoideis, curvulis, utrinque acutis, 80-85 × 7, olivaceo-fuligineis, longitrorsum tenuiter striatis.

Hab. in ramis putridis, Tjibodas, Java.

GAILLARDIELLA Pat. Bull. Soc. Myc. de Fr. 1895, p. 226 (Etym. a cl. mycologo M. Gaillard). — Perithecia superficialia, cupuliformia, membranacea, ostiolata, rugosa, glabra, contextu cellulis angulosis magnis composito. Asci octospori. Sporidia brunnea, didyma. — Ad Hypocreaceas quoque vergit, teste auctore.

1. **Gaillardiella pezizoides** Pat. l. c. — Peritheciis atris, superficialibus, 2140
cupulatis, 1 mm. diam., ostiolo papillato donatis, hyphis repentibus, brunneis, 10 μ. diam., septatis, radiantibus cinctis; excipulo e cellulis polygonis, magnis, 25-35 μ. latis, fuliginosis, pellucidis, coriaceo-membranaceis contexto, extus ad instar *Meliolæ* tuberculato, nucleo albo; ascis 8-sporis, clavatis, longe stipitatis, 90-100 × 7-8;

sporidiis distichis, rufo-brunneis, ovoideis, medio 1-septatis, non vel vix constrictis, 10 × 5.

Hab. in fragmentis ligni putridis dejectis in Æquatoria (v. Lagerheim).

OTTHIA Nits. — Syll. I, p. 735, IX, p. 752, XI, p. 317.

1. **Otthia hungarica** Sacc. et Syd. *Otthia Syringæ* Hazsl. Math. es 2141
term. Közlem. XXV, 2 Budapest. 1892, p. 88, tab. V, fig. 19. nec (Fr.) Niessl. — Peritheciis parvis, subglobosis, epidermidem perforantibus et cæspites minimos formantibus, ostiolo rotunde perforatis; ascis cylindricis, tenuibus, 120-130 μ. longis, stipitatis; sporidiis longitudinaliter monostichis, fusco-nigris, oblongis, ad septum leniter constrictis, 20 × 8-10.

Hab. in ramis emortuis Syringæ vulgaris in Hungaria. — Ob perithecia minima, ob cæspites minutos, ob ascorum et sporidiorum formam distincta species.

MELANCONIELLA Sacc. — Syll. I, p. 740, IX, p. 753.

1. **Melanconiella appendiculata** (Otth) Sacc. Hedw. 1896, p. 29, *Dia-* 2142
porthe appendiculata Otth, Bern. Mittheil. 1870, p. 100. — Peritheciis paucis subconfertis, depressis, stromate corticali, pustulato immersis, collis erecto-conniventibus; ostiolis crassiusculis in disco erumpenti nigro-fusco; ascis oblongato-ellipsoideis, basi brevissime rostratis, octosporis; sporidiis majusculis, constricto-1-septatis, umbrinis, 38 × 16, utrinque breviter obtuseque hyalino-appendiculatis.

Hab. in ramis corticatis Aceris platanoidis in Helvetia. — Certe affinis *M. acrocysti* (Peck).

VALSARIA Ces. et De Not. — Syll. I, p. 741, IX, p. 755, XI, p. 318.

1. **Valsaria Rehmii** Sacc. et Syd. *Valsaria pustulans* Rehm, Hedw. 2143
1895, p. (165) nec (Ell. et Ev.) Sacc. — Stromatibus gregariis, cortici sæpe seriatim immersis emergentibus et epidermide horizontaliter aut stellatim fissa emergentibus, hemisphæricis v. irregulariter globosis, fusco-nigris, apice demum papillulis exiguis pertusis obsessis, 2-4 mm. diam.; peritheciis in quoque stromate 6-12, 1-vel 2-stichis, globosis; ascis fusiformibus, apice rotundatis, 130-170 × 25, octosporis; sporidiis oblongis, obtusis, rectis, bicellularibus, quaque cellula nucleo oleoso magno instructis, medio haud constrictis, primitus hyalinis, dein fuscis, demum subscabridis, utroque apice breviter late appendiculatis, 25-30 × 12, distichis; paraphysibus tenerrimis, septatis, ca. 6 μ. crassis, hyalinis.

Hab. ad truncos siccos Aceris campestris in montibus pr. Zürich Helvetiæ (v. Tavel).

2. **Valsaria massarioides** Penz. et Sacc. Malpighia XI, 1897, p. 503. 2144
— Peritheciis hinc inde in acervulos subvalseos paucis congestis, subcorticalibus, dein erumpentibus, globosis, 0,5 mm. diam., nigris, ostiolis brevibus, cylindraceis, subconvergentibus: linea nigra stromatica tortuosa infra acervulos per lignum excurrente; ascis cylindraceis, brevissime stipitatis, paraphysatis, octosporis, apice obtusis, 150-180 × 20-24; sporidiis subdistichis, elliptico-oblongis, constricto didymis, loculo superiore lenissime crassiore, initio pallidis et fere granulosis, bi-nucleatis, dein fuligineis, biguttatis, 30-43 × 12-14.

Hab. in ramis emortuis corticatis, Tjibodas ins. Java. — Ob perithecia laxe congesta ad *Massariellam* nutat et ubi sporidia muco obvoluta essent, ad *Massariovalsam* pertineret; ergo anceps.

3. **Valsaria Xanthoxyli** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 280. 2145
— Stromatibus pulvinatis, 2-6 mm. diam., brunneo-nigris, subcarbonaceis; peritheciis minutis, ovato-oblongis, 1 × $^1/_4$-$^1/_3$ mm., membranaceis, superficie corticis immutati insidentibus; ostiolis tuberculiformi-conicis, demum late perforatis vel umbilicatis; ascis cylindraceis, p. sp. 75-80 × 8-10, paraphysibus copiosis obvallatis; sporidiis monostichis, ellipticis, uniseptato-constrictis, brunneis, 12-14 × 6-7.

Hab. in ramis Xanthoxyli Clavæ-Herculis, Louisiana Amer. bor. (Langlois).

4. **Valsaria allantospora** Ell. et Ev. Syll. XI, p. 318. Huc ducenda est *V. coloradensis* Ell. et Ev. in Americ. Natur. 1897, p. 342.

Sect. 6. Phæophragmiæ.

MASSARIA De Not. — Syll. II, p. 2, IX, p. 759, XI, p. 319.

1. **Massaria Berberidis** Oud. Rév. des Champ. II, p. 285. — Peri- 2146
theciis sparsis, membranaceis, epidermide tectis, globoso-depressis, nigris, glabris, $^1/_3$ mm. diam., papillatis; ascis cylindraceis v. fusiformibus, rectis v. curvulis, breve stipitatis, apice rotundatis, basi contractis, octosporis, 55-60 × 9-10, paraphysibus filiformibus; sporidiis distichis, exacte cylindraceis, non attenuatis, utrinque rotundatis, melleis, dein olivaceis, trilocularibus, 22-25 × 4 $^1/_2$-5.

Hab. in ramis Berberidis vulgaris, socia *Massariella Rosæ* in Hollandia (Destrée).

2. **Massaria Magnoliæ** Ell. et Ev. Field Columb. Mus. IX, 1896, p. 141. 2147
— Peritheciis sparsis, immersis, depresso-globosis; $^3/_4$-$1^1/_4$ mm. diam., ostiolo subconico erumpente ornatis, ascis late oblongis, 150-200 × 55-65, octosporis, stipite brevissimo, noduloso, paraphysatis; sporidiis dense distichis, ex hyalino brunneis, distincte 1-septatis, interdum 2-4-septatis, uno septo constricto, 65-80 × 20-25.

Hab. in cortice Magnoliæ acuminatæ, W. Virginia Amer. bor.

3. **Massaria Sorbi** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 2148
1892, p. 176, tab. XII, fig. 49 h. — Peritheciis hemisphæricis, emergentibus ex mycelio stromatiformi, fusco et perforantibus epidermidem denique secedentem, ostiolo punctiformi; ascis cylindricis; sporidiis monostichis, nigro-fuscis, oblongis v. oblongo-fusiformibus, quadrilocularibus, loculis mediis vix brevioribus, 60 × 16-20.

Hab. in corticibus Sorbi Aucupariæ in Hungaria.

REBENTISCHIA Karst. — Syll. II, p. 12.

1. **Rebentischia ulmicola** Fautr. et Lamb. Rev. Mycol. 1897, p. 54. 2149
— Peritheciis superficialibus membranaceis, collabascentibus, subglobosis, nigris nitentibusque; ascis clavato-elongatis; sporidiis oblique monostichis, fuliginosis, 4-septatis, 3-guttulatis, cauda hyalina donatis, 20-22 × 8.

Hab. in cortice vetusto Ulmi campestris in Gallia.

LEPTOSPHÆRIA Ces. et De Not. — Syll. II, p. 13, IX, p. 762, XI, p. 321.

1. **Leptosphæria rhaphidophora** Hazsl. Math. es term. Közlem. XXV, 2150
2, Budapest. 1892, p. 147, tab. IX, fig. 38. — Peritheciis gregariis, globosis, apice impressis, sed ostiolo clavato papilliformi; ascis cylindricis, basi clavatis, 66 × 17, fasciculatim aggregatis; sporidiis fusiformibus, angustis, apicibus obtusis, 48 × 4-5, novem septis transversalibus loculatis.

Hab. in scapo Anemones narcissifloræ in Carpatho centrali.

2. **Leptosphæria Arabidis** Allesch. Ber. Bayr. Bot. Ges. V, 1897; 2151
p. 14. — Peritheciis sparsis, epidermide tectis, dein erumpentibus, nigris; ascis clavatis, octosporis; sporidiis fusiformibus, subcurvis, 3-5-septatis, guttulatis, 40-50 × 4-5, flavis, dein fuscis.

Hab. in caulibus emortuis Arabidis alpinæ in Bavaria super.

3. **Leptosphæria Chelidonii** Fautr. Rev. Mycol. 1895, p. 168. — Peritheciis sparsis, tectis, matricem nigricantibus; ascis clavatis, 60-80 × 8-10, paraphysatis; sporidiis acicularibus olivaceis, 3-septatis, rectis v. leniter curvulis, 25-30 × 3-4.

Hab. in caulibus siccis Chelidonii majoris in Gallia.

4. **Leptosphæria Vanhoeffeniana** Allesch. in Allescher et P. Hennings, Pilze aus dem Umanakdistrikt. 1897. p. 8. — Peritheciis sparsis, epidermide tectis, dein erumpentibus, minutis, contextu parenchymatico, atro-olivaceo; ascis obovatis, deorsum in pedicellum brevissimum abruptum attenuatis, ca. 45-60 × 10-12; sporidiis di-vel tristichis, cylindraceo-fusoideis, utrinque obtusiusculis, plerumque leniter curvulis, 3-septatis, olivaceo-viridibus, 25-30 × 3-4 2153

Hab. in foliis emortuis Melandryi apetali et Saxifragæ nivalis, socia *Sphærella sibirica* in Groenlandia (Vanhöffen).

5. **Leptosphæria curta** Sacc. et Flag. Bull. Soc. Myc. de Fr. 1896, p. 66 tab. V, fig. 8. — Peritheciis subcutaneis vix erumpentibus, hinc inde approximatis, $^1/_4$ mm. diam., subgriseis, globosis vix papillatis; ascis clavatis, breve crasse stipitatis, 50-60 × 7-8, parce paraphysatis, 8-sporis; sporidiis distichis, fusoideis, rectis curvulisve, 3-septatis, ad septa præsertim medium constrictis, 15 × 4, 4-guttatis, fuligineo-olivaceis. 2154

Hab. in ramis emortuis Rhois typhinæ, Rigny Galliæ. — Videretur *L. Coniothyrium* ascis curtis sporidiisque distichis. A *Clypeosphæria Hendersonia* recedit defectu maculæ stromaticæ, sporidiis pallidioribus.

6. **Leptosphæria rhoina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 131. — Peritheciis gregariis, superficie ligni immersis, ea elevata tectis, globosis v. breviter ellipticis, 200-250 μ. diam.; ostiolo papilliformi, erumpente; ascis clavato-cylindraceis, 60-70 × 8-10, breviter stipitatis, paraphysatis; sporidiis biseriatis, fusoideis, leniter curvulis, 3-5-septatis, ad septa constrictis, flavo-brunneis, 16-22 (plerumque 20) × 5-6 $^1/_2$. 2155

Hab. in ligno decorticato Rhois glabræ, Kansas Amer. bor. (Bartholomew).

7. **Leptosphæria meridionalis** D. Sacc. Myc. ital. n. 302 (1898). — Peritheciis gregariis, cortice innatis dein erumpentibus, prominulis, globosis, obtuse papillatis, 300 μ. diam., nigris; ascis cylindraceis, apice obtuse rotundatis, brevissime stipitatis, 190-200 × 18-21, octosporis, filiformi-paraphysatis; sporidiis rectiuscule monostichis, ob- 2156

longis, utrinque rotundatis, constricto-3-septatis, rectis, 4-nucleatis, olivaceo-fuligineis, 45 × 15.

Hab. in ramulis Tamaricis gallicæ, Trinitapoli (Foggia) ubi leg. prof. Hadr. Fiori. — Contextus perithecii minute parenchymaticus, fuligineus; sporidia initio hyalina intusque minutissime granulosa. A *Lept. agminali*, cui affinis, differt sporidiis utrinque obtusioribus, monostichis, saturatius coloratis, distincte guttulatis, paullo majoribus.

8. **Leptosphæria microspora** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 461. — Peritheciis sparsis v. late gregariis, subcuticularibus, depresso-globosis, 150-250 μ. diam., subcollabentibus, ostiolo papilliformi ornatis; ascis clavato-cylindraceis, sessilibus, paraphysatis, 55-60 × 7-8; sporidiis subdistichis, anguste ellipticis, 1-3-septatis, leniter constrictis, 10-12 × 3-3 1/4. 2157

Hab. in caulibus siccis Lespedezæ capitatæ, Canada Amer. bor. (Dearness). — Ad *Didymosphæriam* accedit.

9. **Leptosphæria monticola** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 461. — Peritheciis epidermide in pustulas elevata ostiolo papilliformi conico v. breve cylindraceo perforata tectis, 300-400 μ. diam., membranaceis, nigris; ascis oblongo-clavatis, plerumque curvulis, paraphysatis, 8-sporis; sporidiis fasciculatis, cylindrico-fusoideis, 5-7-septatis, vix constrictis, loculo secundo modice inflato, 45-55 × 7. 2158

Hab. in foliis et petiolis emortuis Trifolii Kingii, Colorado Amer. bor.

10. **Leptosphæria Phaseolorum** Ell. et Ev. Americ. Natur. 1897, p. 341. — Peritheciis sparsis, ovato-globosis, circiter 1/4 mm. diam., epidermide elevata et ostiolo conico v. conico-cylindraceo perforata tectis; ascis clavato-cylindraceis, breve stipitatis, paraphysatis; sporidiis distichis, oblongo-fusoideis, subobtusis, leniter curvulis v. subinæquilateralibus, 3-5-septatis, ad septa constrictis, fuscescentibus, 16–22 × 5-6. 2159

Hab. in caulibus siccis Phaseoli vulgaris pr. Newfield Amer. bor.

11. **Leptosphæria ternata** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 150, tab. IX, fig. 39. — Peritheciis globosis, sub epidermide nidulantibus, solummodo apice epidermidem perforantibus; ascis clavatis in stipitem brevem attenuatis, 100-120 μ. longis, 3- vel 6-sporis; sporidiis fusiformibus, 40 μ. longis, utrinque obtusis, 6-locularibus, fuscidulis, sed loculo tertio et quarto obscurioribus. 2160

Hab. in ramis Piri Mali in Hungaria.

12. **Leptosphæria rimicola** (Otth) Sacc. Hedw. 1896, p. 29, *Cladosphæria* (Erumpentes) *rimicola* Otth, Bern. Mittheil. 1870, p. 106. — Peritheciis cortici leniter insculptis, subglobosis, nunc orbiculatim collectis, ostiolis convergentibus, nunc transversim oblongeque cæspitosis magisque revelatis; ascis clavato-cylindraceis, octosporis; sporidiis oblongis, constricto-3-septatis, obtusis, fumoso-brunneis, distichis, 19-22 × 5-7; paraphysibus filiformibus ascos æquantibus. 2161

Hab. in ramis dejectis Pruni avium in Helvetia.

13. **Leptosphæria superficialis** Hazsl. Math. es term. Közlem. XXV, 2, Budapest. 1892, p. 146, t. IX, fig. 36. — Peritheciis gregariis ex epidermide atrata erumpenti-subsuperficialibus, conoideis, distincte papillatis, nigris; ascis oblongo-cylindraceis, in stipitem brevem abrupte attenuatis; sporidiis fusiformibus 6-septatis, oblique monostichis vel subdistichis, 26 μ. longis, omnibus loculis 1-guttatis. 2162

Hab. in caulibus Potentillæ argenteæ in Hungaria.

14. **Leptosphæria Montis-Bardi** Fautr. et Lamb. Rev. Mycol. 1896, p. 69, tab. CLIX, fig. 3. — Peritheciis cum eis *Heterosphæriæ Patellæ* mixtis; ascis clavatis, 100-110 × 10-12; sporidiis luteis, fusoideis, curvulis, 6-septatis, guttulatis, guttula tertia majore, rotundata, 45 × 6-7. 2163

Hab. in caulibus Seseleos montani in Gallia.

15. **Leptosphæria ettalensis** Allesch. Ber. Bayr. Bot. Ges. V, 1897, p. 13. — Peritheciis tectis, dein erumpentibus, sparsis gregariisve, globoso-depressis, papillatis et pertusis, contextu parenchymatico, fusco-nigro, ad 200 μ. diam.; ascis cylindraceo-clavatis, ad 100 μ. longis, octosporis; sporidiis distichis v. oblique monostichis, cylindraceis, rectis, 6-septatis, cellula quarta (media) subincrassata, utrinque obtuso-rotundatis, flavido-brunneis, 18-24 × 4-5. 2164

Hab. in caulibus emortuis Laserpitii latifolii in declivibus viæ ettalensis Bavariæ super.

16. **Leptosphæria valesiaca** Wegelin, Mitth. d. Thurgau. Naturf. Ges. XII, 1896, p. 6 extr. tab. II, fig. 4-5. — Peritheciis sparsis, sæpe aggregatis, epidermide tectis, erumpentibus, demum superficialibus, hemisphæricis, papillula vix prominula, carbonaceis, opacis, 400-500 μ. diam.; ascis cylindraceis, subsessilibus, 8-sporis, 125-136 × 10-12, paraphysibus numerosis ramosis obvallatis; sporidiis ellipticis v. ovoideis, utrinque rotundatis, 4-cellularibus, loculo secundo majore, ad septa (ad medium maxime) constrictis, aureo-brunneis, 16-23 × 8-10. 2165

Hab. in caulibus siccis Artemisiæ campestris, Helvetia.

17. **Leptosphæria rothomagensis** Sacc. — Syll. II, p. 17. — Var. **Artemisiæ** Pat. Enum. Champ. Tunisie, 1892, p. 13. — Peritheciis minutis, $^1/_4$ mm. diam., sparsis, subepidermicis, globosis; ostiolo conico, erumpente; ascis apice obtusis, basi in stipitem elongatum attenuatis, 120-150 × 15-20; paraphysibus linearibus, ascos æquantibus; sporidiis distichis, 3-septatis, cylindraceis, oblongis, utrinque obtusis, ad septa constrictis, luteo-brunneis, rectis curvulisve, 28-30 × 10-12. 2166

Hab. in caulibus emortuis Artemisiæ Herbæ-albæ, Tunisia. — A typo differt præcipue sporidiis majoribus.

18. **Leptosphæria Galii** (Otth) Sacc. Hedw. 1896, p. 29, *Pleospora Galii* Otth Bern. Mittheil. 1868, p. 56. — Peritheciis minutis, globoso-subdepressis, epidermide pustulata tectis, ostiolo minuto conico erumpente, tandem iisdem peritheciis emergentibus; ascis cylindricis, deorsum breviter attenuatis, octosporis; sporidiis monostichis, oblongis, obtusissimis, 4-locularibus, ex olivaceo brunnescentibus, loculis extimis pallidioribus, 14 × 5, paraphysibus tenerrimis parum distinctis. 2167

Hab. in caulibus Galii Molluginis, Bern Helvetiæ. — Pycnidium adest, sistens *Phomam* sporulis fusoideis, hyalinis.

19. **Leptosphæria Menthæ** Fautr. et Lamb. Rev. Mycol. 1895, p. 169. — Peritheciis grossis, eis *Pleosporæ herbarum* similibus; ascis cylindraceis, basim versus attenuatis, 80-100 × 10; sporidiis olivaceis v. luteis, elongatis, 28-30 × 4-5, 6-7-septatis, medio constrictis ibique sæpe uno loculo sphærico munitis. 2168

Hab. in caulibus siccis Menthæ silvestris in Gallia.

20. **Leptosphæria Fiumana** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 143, tab. VIII, fig. 35. — Peritheciis globosis, peristomio spectabili ovato instructis et ascis oblongo-clavatis, breviter stipitatis paraphysibusque filiformibus longis farctis; sporidiis utrinque rotundatis, rectis v. curvatis, cylindricis, fusiformibus v. clavatis, primum sporidiolis 4 instructis, demum triseptatis, fuscidulis, 30-34 μ. longis; sporidiolorum crassitie secundum latitudinem loculorum variante. 2169

Hab. in caulibus Labiatæ cujusdam pr. Fiume Hungariæ.

21. **Leptosphæria concinna** Ell. et Ev. Proc. Acad. Philad. 1895, p. 423. — Perithecius sparsis, subcuticularibus, subglosis, 200-300 μ. diam., demum semiemergentibus, sed plus minusve cuticula nigrefacta tectis, ostiolo papilliformi; ascis clavato-cylindraceis, 70-80 2170

7-10, paraphysatis, breve stipitatis; sporidiis sursum in asco distichis, fusoideis, pallide luteis, 5-septatis, leniter curvulis, 1 v. 2 cellulis medio leviter tumidis, 20-27 × 3-4.

Hab. in caulibus emortuis Castilleiæ miniatæ, Colorado, Amer. bor.

22. **Leptosphæria lethalis** Ell. et Ev. Proc. Acad. Phila l. 1895, p. 423. 2171
— Peritheciis erumpenti-superficialibus, gregariis, subglobosis, $^1/_4$-$^1/_3$ mm. diam., ostiolo papilliformi ornatis; ascis clavato-cylindraceis, 50-60 × 7-8, octosporis; paraphysibus numerosissimis; sporidiis fusoideis, leniter curvulis, 3-septatis, medio lenissime constrictis, 50-60 × $3\,^1/_2$-4.

Hab. in caulibus emortuis Pentastemonis conferti, Idaho, Amer. bor. (Piper).

23. **Leptosphæria primulana** Allesch. Ber. Bayr. Bot. Ges. V, 1897, 2172
p. 14. — Peritheciis gregariis sparsisve, epidermide tectis, dein erumpentibus, globoso-depressis, papillatis, contextu parenchymatico, atro, circiter 120-150 μ. diam.; ascis cylindraceo-clavatis, breve stipitatis, octosporis, 80-100 × 8-10; sporidiis distichis, fusiformibus, leniter curvatis, utrinque obtusis, 4-septatis, loculo pænultimo incrassato, circiter 25-35 × $4\text{-}4\,^1/_2$, olivaceis.

Hab. in caulibus exsiccatis Primulæ elatioris in Franconia super. bavar. (Rohnfelder). — A *L. primulæcola* (Wint.) Sacc. certe diversa.

24. **Leptosphæria Wegeliniana** Sacc. et Syd. *Leptosphæria Rumicis* 2173
Wegel. Mitth. d. Thurgau. Naturf. Ges. XII, 1896, p. 8 extr. tab. II, fig. 8-9, nec Fautr. — Peritheciis sparsis, epidermide tectis, dein erumpentibus, globoso- vel depresso-globoso-papillatis, nigris, $^1/_4$ mm. diam.; ascis clavatis, brevissime stipitatis, 8-sporis, 125-140 × 20-21, paraphysibus numerosis gracilibus filiformibus obvallatis; sporidiis oblique distichis, clavato-fusiformibus, plerumque curvulis, utrinque attenuato-rotundatis, 11-13-cellularibus, quaque cellula 1-guttulata, cellula quarta v. quinta maxima, ad omnia septa constrictis, in asco luteis, solitariis castaneis, 40-52 × 8-10.

Hab. in caulibus siccis Rumicis, Helvetia.

25. **Leptosphæria massariella** Sacc. et Speg.-Syll. II, p. 30. — Var. 2174
disticha D. Sacc. **Malp.** 1898, p. 208, tab. VII, fig. 5. — Peritheciis globulosis, subcutaneis, intus albis, ostiolo obtuso sæpe ruguloso; ascis tereti-fusoideis, 130-150 × 12-14, filiformi-paraphysatis, octosporis; sporidiis distichis, oblongis, plerumque inæquilateralibus,

basi acutangulis, 3-septatis, medio-constrictis. 20-22 × 8-9, olivaceis, minute guttulatis.

Hab. in ramis emortuis Mori albæ, Vittorio (Treviso) Ital. bor. — A typo differt sporidiis distichis, minus obtusis, perithecciis (initio?) intus albis.

26. **Leptosphæria Piperis** P. Henn. Pilz. Ostafr. p. 33. — Perithecciis 2175
epiphyllis in maculis pallescentibus v. fuscescentibus, circulariter dispositis, gregariis, hemisphæricis, punctiformibus, atris, levibus, subnitentibus, circit. 0,1-0,1 $^1/_2$ mm. diam.; ascis subcylindraceo-clavatis, obtusis, 8-sporis, 60-75 × 17-20, paraphysatis; sporidiis cylindraceo-clavatis v. subfusoideis, 3-septatis, e subhyalino fuscescentibus, 32-42 × 6-8.

Hab. in foliis Piperis capensis in Africa trop. (Volkens).

27. **Leptosphæria juniperina** Hazsl. Math. es term. Közlem. XXV, 2176
2. Budapest, 1892, p. 150. — Perithecciis hemisphæricis, emergentibus, ostiolo papilliformi instructis; ascis clavatis; sporidiis distichis, oblongo-fusiformibus, fuscescentibus, ad medium septum constrictis, symmetrice divisis, 4-guttulis æqualibus, monostichis instructis, 24-26 × 7-8.

Hab. in foliis aggregatis Juniperi nani in alpe Retyizat Hungariæ.

28. **Leptosphæria iridigena** Fautr. Rev. Mycol. 1895, pag. 168, 2177
tab. CLVII, fig. 3. — Perithecciis sparsis, globulosis, subepidermicis, pertusis; ascis amplis, rosulatis, inæqualiter tumidis v. paulum reniformibus, brevissime stipitatis, 80-90 × 15-19; sporidiis bacillaribus, luteis, 5-septatis, rectis, non constrictis nec guttulatis. 40-45 × 5-6.

Hab. in foliis siccis Iridis Pseudacori in Gallia.

29. **Leptosphæria iridicola** Lamb. et Fautr. Rev. Mycol. 1895, p. 168, 2178
tab. CLVII, fig. 4. — Perithecciis minutis, circiter $^1/_3$ mm., tectis, dein prominentibus, rotundatis, pertusis; ascis clavatis, curvulis, 80-85 × 12-14; sporidiis cumulatis v. subdistichis, cylindraceis, obtusis, rectis, luteis, 4-septatis, guttulatis, 23-24 × 5-6.

Hab. in foliis gelu tactis Iridis fœtidissimæ in Gallia.

30. **Leptosphæria densa** Bres. Hedw. 1896, p. 199. — Maculis nullis; 2179
perithecciis dense gregariis, punctiformibus, globoso-lentiolaribus, 100-120 μ., ex hyphis mycelialibus, luteis, 3 μ. latis oriundis; ascis cylindraceo-subclavatis, 70-75 × 12-15; sporidiis flavis, conglomeratis, 7-septatis, loculo tertio crassiore, ad septa media subconstrictis, 34-36 × 4-5.

Hab. ad folia Acori Calami pr. Königstein Saxoniæ (Krieger).

31. **Leptosphæria Briosiana** Pollacci, Atti Ist. bot. Pavia, 2 ser. V, 1896, p. 8 extr. tab. III, fig. 4, 10, 11, 15. — Peritheciis maculicolis, globulosis, tectis, seriatim dispositis, 125 × 80 μ., nigris, ostiolo brevi; ascis paraphysatis, cylindraceo-clavatis, breve stipitatis, 63 μ. longis; sporidiis fusoideis, obtusiusculis, 15-18 × 6-8, typice 5-6-septatis, non vel vix constrictis, loculo medio crassiore, olivaceo-fuscis. 2180

Hab. in foliis vivis Jubææ spectabilis in hort. bot. Genuæ Italiæ bor.

32. **Leptosphæria crastophila** Sacc.-Syll. II, p. 61. — Forma **Tofieldiæ** Sacc. Malpighia XI, 1897, p. 51. — Ascis 50 × 15-16; sporidiis 15 × 5, olivaceis, 3-septatis, non constrictis. 2181

Hab. in caulibus foliisque Tofieldiæ calyculatæ in Italia.

33. **Leptosphæria consociata** Rehm, Hedw. 1896, p. (149). — Peritheciis pagina superiore foliorum flavide maculata immersis, dein papilla brevissima prorumpentibus, globosis, singularibus v. binis rarissime trinis consociatis, nigris, glabris, $^1/_3$ mm. latis; ascis ellipticis, sessilibus, 90-100 × 21, octosporis; sporidiis fusiformibus, rectis v. subcurvatis, dilute flavidulis, 6-cellularibus, ad septa non constrictis, 30-36 × 6-7, distichis; paraphysibus filiformibus hyalinis, 3 μ. latis; perithecio molli, viridi-fusco, parenchymatico. 2182

Hab. ad folia Chusqueæ pr. San Jorge, prov. Pichincha Æquatoriæ (Lagerheim).

34. **Leptosphæria stellata** Pat. Bull. Soc. Myc. de Fr. 1895, p. 225. — Peritheciis sparsis, atris, majoribus, 1 mm. altis, conicis, glabris, crasse tunicatis, durissimis, contextu indistincto; ascis cylindraceis, apice obtusis, 230-250 × 12-18, octosporis, filiformi-paraphysatis; sporidiis subdistichis, longe fusiformibus, utrinque acutis, transverse 5-septatis, melleo-fuligineis, 70-75 × 10. 2183

Hab. in truncis emortuis Chusqueæ in Æquatoria (v. Lagerheim).

35. **Leptosphæria tucumanensis** Speg. Rev. Agr. y Veter. La Plata, 1896, p. 232. — Maculis nullis; peritheciis laxissime gregariis v. subsparsis, epidermide tectis eaque arcte adnatis, prominulis, parvis, 120-150 μ. diam., lenticulari-convexis, ostiolo minuto papillato epidermidem perforante non v. vix exserto donatis, coriaceis, nigris, contextu atro indistincto; ascis cylindraceis v. subclavatis, apice obtuse rotundatis, basi modice attenuatis abrupte minuteque pedicellatis, 60 × 8, octosporis, aparaphysatis (?); sporidiis suboblique 2184

distichis, fusoideis, 18-20 × 3-4, utrinque obtusiuscule acutatis, 6- vel sæpius 7-septatis, loculis secundo tertioque superis leniter incrassatis, ad septa constrictis, rectis v. vix curvulis, chlorinis.

Hab. in culmis ægrotantibus adhuc vivis Sacchari officinarum pr. S. Pablo, Argentina.

36. **Leptosphæria Spegazzinii** Sacc. et Syd. *Leptosphæria Sacchari* Speg. Rev. Agr. y Veter. La Plata 1896, p. 232, nec v. Breda. — Maculis nullis vel matrice vix pallescente; peritheciis amphigenis v. sæpius hypophyllis, sparsis v. laxe gregariis, sæpius subseriatis, globulosis, minimis, 120-140 μ. diam., parenchymate immersis, ostiolo latiusculo 30 μ. diam., vix papillato atque peridermium perforante donatis, glabris, membranaceo-coriacellis, contextu parenchymatico pallacido fuligineo; ascis cylindraceis, 70-80 × 9-10, antice obtuse rotundatis crassiusculeque tunicatis, postice brevissime cuneato-pedicellatis, octosporis, paraphysibus quandoque nullis, quandoque numerosis obvallatis; sporidiis obliique distichis fusoideis rectis v. leniter inæquilateralibus, 25 × 5-6, utrinque acutis, 3-septatis, ad septa constrictulis, pallide olivaceis, loculis centralibus sæpius minute biguttulatis. 2185

Hab. in vaginis foliisque languidis v. arescentibus Sacchari officinarum prov. Tucuman, Argentina.

37. **Leptosphæria Elymi** Atk. Bull. Cornell Univ. III, n. 1. 1897, p. 7. — Peritheciis gregariis v. laxe aggregatis, paucis, tectis, applanatis, ostiolo brevissimo erumpente ornatis, minutis, 70-100 μ.; ascis cylindraceo-oblongis, breve stipitatis, 35-50 × 10-14, paraphysibus filiformibus obvallatis; sporidiis confertis, bi-vel tristichis, melleis, fusoideo-inæquilateralibus, 5-septatis, 18-24 × 3-3½. 2186

Hab. in foliis Elymi, Auburn, Alabama Amer. bor.

38. **Leptosphæria Baldingeræ** Fautr. et Lamb. Rev. Mycol. 1897, p. 53. — Peritheciis gregariis, majusculis, nigris, rugulosis, basi hyphis brunneis vestitis; ascis late clavatis, subsessilibus, brevissime stipitatis, 100-110 × 15-18; paraphysibus filiformibus ascos superantibus; sporidiis oblique dispositis, fusoideis, curvatis, fuliginosis, 8-10-septatis, ad septa constrictis, loculis ocellatis, loculo medio incrassato, 40-45 × 10-12. 2187

Hab. in vaginis Baldingeræ arundinaceæ in Gallia.

38. **Leptosphæria Arrhenatheri** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 132. — Peritheciis sub epidermide nidulantibus, globosis, glabris, nitidis, nigris, membranaceis; membrana elastica ex cellulis cubicis verticaliter et horizontaliter seriatim 2188

junctis constructa; paraphysibus filiformibus; ascis cylindricis, breviter stipitatis, 8-sporis, 80-100 × 8-10; sporidiis distichis fusiformibus, fuscis, quadrilocularibus, 24-26 × 4-6.

Hab. in culmis Arrhenatheri avenacei in Hungaria.

39. **Leptosphæria Bambusæ** Roll. Bull. Soc. Myc. de Fr. 1896, p. 4. 2189
t. 1, f. 11. — Peritheciis gregariis, nigris, rostro sat crasso præditis, rotundis, erumpentibus, $^1/_4$-$^1/_3$ mm. latis; ascis clavato-cylindricis, breviter stipitatis, 80-90 × 10-15; sporidiis melleis, subdistichis, fusiformibus, 5-septatis, ad septa constrictis, rectis vel curvis, loculis sæpe guttatis, 20-25 × 5; paraphysibus numerosis, filiformibus.

Hab. ad corticem Bambusæ, Golfe Juan Galliæ.

40. **Leptosphæria stromatoidea** Hazsl. Math. es term. Közlem. XXV, 2190
2, Budapest 1892, p. 135. — Peritheciis ex maculis epidermidis cinereis gregatim emergentibus, sæpissime in series approximatis, et mycelio intertexto junctis, in formam stromatis linearis per epidermidem ruptam emersis; ascis angustis, fusiformibus, plerumque breviter stipitatis, paraphysibus simplicibus ascos superantibus obvallatis; sporidiis cylindrico-fusiformibus, utrinque acutis, fuscis, 18-20 × 2-2$^1/_2$.

Hab. in culmis Festucæ spec. in Hungaria.

41. **Leptosphæria lichenicola** Zopf, Nov. Act. LXX, 1897, p. 160, 2191
Hedw. 1896, p. 358. — Peritheciis numerosis, minutissimis, punctiformibus, immersis, globosis, ellipsoideis v. breviter ovoideis; ascis cylindraceis, vix clavatis, breve stipitatis, vertice late rotundatis, 52-70 × 10$^1/_2$-14, 6-8-sporis; sporidiis anguste clavatis v. fusiformibus, hyalinis, utrinque rotundatis, 5-7 locularibus, ad septa constrictis, strato mucoso obvolutis, plerumque guttulatis, 20-24 × 5$^1/_2$-6; paraphysibus paucis, irregulariter ramosis.

Hab. in thallo et apotheciis Solorinæ croceæ in Tirolia.

42. **Leptosphæria Richoni** Sacc. et Syd. — Ita vocanda *L. Stellariæ* Rich. (1889), Syll. IX, p. 769, extante *L. Stellariæ* Rostr. (1888), Syll. IX, p. 786.

POCOSPHÆRIA Sacc. — Syll. II, p. 32 (ut subgenus), Berl. Ic. fung. I, p. 89, XI, p. 325.

1. **Pocosphæria Chusqueæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 224. — Ita vocanda *Protoventuria Chusqueæ* Pat. Sacc. Syll. XI, p. 315, nam sporidia matura sunt 9-septata.

CLYPEOSPHÆRIA Fuck. — Syll. II, p. 90, IX, p. 798, XI, p. 326.

1. **Clypeosphæria euphorbiicola** P. Henn. Pilz. Ostafr. p. 32. — Peritheciis sparsis, sub epidermide nidulantibus, dein subsuperficialibus, carbonaceis, atris, dein pertusis, circiter 1 mm.; ascis cylindraceo-clavatis, 8-sporis, 200–260 × 20–26; paraphysibus filiformibus; sporidiis monostichis, oblongis, 3-septatis, septis non constrictis, grosse 1-guttulatis, fusco-brunneis, apice obtusis v. subpapillato-rotundatis, 30-40 × 16-23. 2192

Hab. in cortice Euphorbiacearum in Africa trop. (Volkens).

CHÆTOSPHÆRIA Tul. — Syll. II, p. 92, IX, p. 799, XI, p. 326.

1. **Chætosphæria pusilla** Penz. et Sacc. Malpighia XI, 1897, p. 400. — Peritheciis subgregariis, superficialibus, minutis, nigris, globosis, vix papillatis, 0,2 mm. diam., setulosis; setulis filiformibus, subflexuosis, septatis, fuligineis, 150–160 × 5-6; ascis (jam resorptis; sporidiis distichis, fusoideis, subinde clavulatis, 5-septatis, ad septum medium lenissime constrictis, 15-16 × 3, ex hyalino stramineis, rectis curvulisve. 2193

Hab. in superficie atrata ligni putridi in horto bot. Bogoriensi, Java, socia *Helminthosporii* specie, statum ejus conidiophorum forte sistente, conidiis clavatis, sub-7-septatis, 35–45 × 10-12, fuligineis, hyphis setulas *Chætosphæriæ* imitantibus.

2. **Chætosphæria latitans** Sacc. Malpighia XI, 1897, p. 289. — Subiculo late effuso, breviter velutino nigro, e setulis simplicibus crebris formato; peritheciis minutissimis, aterrimis, globulosis, in subiculo parce sparsis, 100–120 μ. diam., sursum calvis, deorsum setulis fuligineis septatis, 4–5 μ. crassis vestitis; ostiolo minutissimo; paraphysibus non visis; sporidiis oblongo-fusoideis, curvulis, 3-septatis, non v. vix constrictis, dilute fuligineis, guttulatis, 15–16 × 5. 2194

Hab. in cortice Fagi silvaticæ, Valsesia in Italia (Carestia).

3. **Chætosphæria brevispinosa** Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 6. — Peritheciis numerosis, sparsis v. gregariis, mycelio effuso tenui crustaceo, atro-brunneo, ex hyphis brunneis septatis non setosis composito insidentibus v. involutis, crustaceis, nigris, ovatis v. piriformibus, 100–120 μ. diam., deorsum setis brevibus septatis nigris, 20-35 × 5-7 metientibus tectis, apice levibus; ascis minutis, clavatis, 20-25 × 10-15 p. spor.; sporidiis confertis, inæquilateralibus, ellipticis v. clavatis, 3-septatis, ad septa constrictis, 10–14 × 3–4. 2195

Hab. in vaginis foliorum Arundinariæ tectæ, Auburn, Alabama Amer. bor.

4. **Chætosphæria Silva-nigra** Penz. et Sacc. Malpighia XI, 1897, 2196
p. 400. — Subiculo late effuso, dense velutino, fuligineo-nigro; hyphis intricatis, adscendentibus, repetito vage ramosis, 5 μ. crassis, aterrimis, obscure septatis, ramulis ultimis brevibus, curvulis, patulis; peritheciis interseminatis, villo omnino absconditis, raro tandem subnudatis, globosis, 200–250 μ. diam., in ostiolum tereticonicum, 80–100 μ. long. attenuatis; ascis fusoideis, apice obtusis, subsessilibus, 45–55 × 9–10, aparaphysatis (?), 8-sporis; sporidiis distichis, fusoideis, rectiusculis, 18 × 4, utrinque acutiusculis, 3-septatis, non constrictis, subhyalinis, acervatis stramineis.

Hab. intra et extra culmos emortuos Bambusæ, Java.

MELANOMMA Nits. et Fuck. — Syll. II, p. 98, IX, p. 801, XI, p. 327.

1. **Melanomma Pulvis-pyrius** (Pers.) Fckl.-Sacc. Syll. II, p. 98. — 2197
f. **Ulmi** Lamb. Rev. Mycol. 1897, p. 54. — Peritheciis superficialibus, ovoideis, papillatis; ascis late clavatis; sporidiis cumulatis v. subdistichis, olivaceis, transverse 3–7-septatis, in longitudine uniseptatis, ovalibus, 19-22 × 6-8.

Hab. in cortice emortuo Ulmi in Gallia.

2. **Melanomma subcongruum** Ell. et Ev. Proc. Acad. Philad. 1895, 2198
p. 417. — Peritheciis gregariis v. erumpenti-superficialibus basi plus minusve cortice immersis, ovatis, intus schistaceis atque muriculato-asperis, $^1/_2$-$^3/_4$ interdum etiam 1 mm. diam., ostiolo conico perforato nigro nitenteque donatis; ascis clavato-cylindraceis, 150–190 × 12–14, p. spor. 114–120 μ. longa, octosporis, paraphysibus numerosis filiformibus obvallatis; sporidiis oblique monostichis, oblongis, deorsum paululum attenuatis, obtusis, leniter curvulis, 3-5-septatis, ad septa leniter constrictis, pallide brunneis.

Hab. in cortice Populi moniliferæ, Kansas Amer. bor. (Bartholomew). — *M. medio* et *juniperino* affine, sed differt peritheciis multo majoribus, ascis longioribus et sporidiis 3–5-septatis.

3. **Melanommaccupulatum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 128. 2199
— Perithecus sparsis v. gregariis superficialibus, brunneo-nigris, membranaceis, pilis brevibus, 20-40 × 2 metientibus, continuis, subundulatis, brunneis vestitis, tandem supra collabascentibus ideoque cupulatis, ostiolo papilliformi donatis, sæpe subiculo tomentoso olivaceo-nigro ex hyphis ramosis brunneis septatissimis formato insidentibus; ascis clavato-cylindraceis, 45-60 × 8; paraphysibus in-

distinctis; sporidiis distichis, oblongo-fusoideis, pallide brunneis, 3-septatis, non constrictis, 10-12 × 3 $^1/_2$-4.

Hab. in ligno decorticato Salicis, Washington Amer. bor. (Suksdorf). — *M. pilosello* valde affine.

4. **Melanomma conicum** P. Henn. Hedw. 1897, p. 229. — Peritheciis 2200
sparsis vel subaggregatis, ligno erumpentibus, dein superficialibus, conicis, acute papillatis, carbonaceo-nigris, opacis, subrugulosis, ca. 1 cm. diametro, intus pallidis; ascis clavatis, 8-sporis, apice obtuso-rotundatis; sporidiis oblique distichis, fusiformibus, rectis vel subcurvulis, utrinque acutiusculis, 3-5-septatis, septo medio constrictis, pluriguttulatis, fuscis vel atrofuscis, 35-50 × 10-11.

Hab. in ligno decorticato pr. Blumenau Brasiliæ (Moeller).

5. **Melanomma exile** (Schw.) Ellis, Proc. Acad. Philad. 1895, p. 22. — 2201
Peritheciis sparsis, erumpenti-superficialibus, nigris, minutis, 120-150 μ. diam., demum leviter collapsis, ostiolo conico-papilliformi; asconbeim visis; sporidiis numerosis, oblongo-ellipticis, 13-16 × 5-6, 3 septatis brunneis, interdum in longitudine 1 vel 2-septatis; subiculo arachnoideo, albido.

Hab. ad truncos in America bor.

6. **Melanomma boreale** Ell. et Ev. Proc. Acad. Philad. 1895, p. 416. 2202
— Peritheciis erumpenti-superficialibus, gregariis, ovatis, circiter $^1/_3$ mm. diam., subcarbonaceis, interdum collabentibus; ostiolis primo inconspicuis, dein conico-cylindraceis, truncatis; ascis clavatis, cylindraceis, breve stipitatis, paraphysatis, octosporis, p. sp. 50-55 × 4-5; sporidiis oblique monostichis v. sursum subdistichis, oblongis, obtusis, 3-septatis, ad septa leniter constrictis, interdum leniss ime curvulis, pallide olivaceis, 9-11 × 3-3 $^1/_2$.

Hab. in ligno aeri exposito, Newfoundland, Amer. bor. (Waghorne).

7. **Melanomma nigricans** Ell. et Ev. Proc. Acad. Philad. 1895, p. 417. 2203
— Peritheciis confertissimis v. crustaceo-congestis, superficiem ligni nigrificantibus, minutis, 150-200 μ., subglobosis, subglabris, osticlo papilliformi; ascis clavato-cylindraceis, breve stipitatis, paraphysatis, p. sp. 55 × 12; sporidiis distichis, oblongo-fusoideis, leniter curvulis, obtusis, plerumque paululum angustatis, ex hyalino pallide brunneis, 3-septatis, 14-17 × 4 $^1/_2$-5 $^1/_2$.

Hab. in ligno putrido, Ohio, Amer. bor. (Morgan).

8. **Melanomma mammiforme** Pat. Journ. de Bot. 1897, p. 368. — Pe- 2204
ritheciis laxe gregariis, erumpentibus, basi tantum cortice infossis, 1 mm. fere latis, conicis v. mammiformibus, ostiolo obtuso prædi-

tis, nigris, duris; ascis?; sporidiis brunneis, rectis v. leniter curvulis, elongato-fusoideis, utrinque acutatis, transverse septatis, vix ad septa constrictis, 40–50 × 10–13.

Hab. ad cortices in Tonkin.

9. **Melanomma Trochus** Penz. et Sacc. Malpighia XI, 1897, p. 401. 2205
— Peritheciis subsparsis, basi insculpta applanata subsuperficialibus, sed lacinulis matricis cinctis, eximie ternato-conoideis, levibus 0,7–1 mm. diam., nigris, carbonaceis, parte basilari tenuiori, ostiolo sæpe acutissimo; ascis cylindraceis, apice rotundatis, paraphysatis, 8-sporis, 150–170 × 22; sporidiis distichis, anguste fusoideis, utrinque acutis, curvulis, 50–60 × 6½–8, 5-septatis, non constrictis, atro-fuligineis, utrinque paullo pallidioribus.

Hab. in culmis emortuis Bambusæ, Java. — Ab affini *M. ternato* mox distinguitur sporidiis quinqueseptatis longioribus et forte peritheciis magis infossis.

10. **Melanomma Penzigii** Sacc. et Syd. *Melanomma leptosphærioides* 2206
Penz. et Sacc. Malpighia XI, 1897, p. 401, nec Pass. — Peritheciis in matrice atrata laxe gregariis, basi insculpta applanata, acute conoideis, minutis, 0,5 mm. latis, nigris, glabris, carbonaceis; ascis cylindraceis, apice rotundatis, breviter stipitatis, 140–150 × 7–9; paraphysibus filiformibus; sporidiis distichis v. oblique monostichis, fusoideis, rectis curvulisve, 3-septatis, ad septa leniter constrictis, utrinque acutulis, 28–30 × 6, fuligineis.

Hab. in rhachidibus putridis Palmarum in horto bot. Bogoriensi, Java. — Affine *Leptosphæriæ arundinaceæ* et *L. donacinæ*, sed perithecia superficialia, eminentia.

TREMATOSPHÆRIA Fuck. — Syll. II, p. 115, IX, p. 811, XI, p. 329.

1. **Trematosphæria Schweinitzii** Ell. et Ev. Proc. Acad. Philad. 1895, 2207
p. 25. — Peritheciis gregariis, semiemergentibus v. erumpenti-superficialibus, ¼–⅓ mm. diam., ovato-conicis, gradatim in ostiolum conicum breve cylindraceum attenuatis, vel erumpentibus depresso-globosis et ostiolo tuberculato-papilliformi, asperulis, brunneolo-nigris; ascis cylindraceis, stipitatis, paraphysatis, p. sp. circiter 90 × 8-10; sporidiis excedentibus, monostichis, fusoideis, brunneis, 3-septatis, medio constrictis; cellulis extimis punctato-obtusis et pallidioribus, 19–22 × 5-6.

Hab. in ramis emortuis Rubi spec., Bethlehem, Amer. bor.

2. **Trematosphæria demersa** (Otth) Sacc. Hedw. 1896, p. XXX, *Cla-* 2208
dosphæria Otth, Bern. Mittheil. 1870, p. 108. — Peritheciis spar-

sis, majusculis, subglobosis, cortice sæpius usque ad lignum immersis, cortice punctulato nigricante tectis, ostiolo atro subconico truncatulo breviter exserto, apice pertuso; ascis clavatis, octosporis; sporidiis fusoideis, 5-septatis, brunneis, utrinque albidis, 6-guttatis 45 × 11; paraphysibus longis, teneris.

Hab. in ramis corticatis Loniceræ Xylostei in Helvetia.

3. **Trematosphæria elliptica** (Otth) Sacc. Hedw. 1896, p. XXX, *Xylosphæria elliptica* Otth, Bern. Mittheil. 1868, p. 53. — Peritheciis sparsis e ligni fibris canescentibus emergentibus, atris, impolitis, basi applanatis, ellipticis, ostiolo umbilicato; ascis oblongis, utrinque obtusis, octosporis; sporidiis oblongis, obtusis, 4-locularibus, ad septa sæpe inconspicua constrictis, 4–8-guttulatis, flavidis, demum dilute fuscidulis, 22-24 × 7-8; paraphysibus filiformibus. 2209

Hab. in radicibus decorticatis Abietis, Weissenburg, Helvetia.

4. **Trematosphæria castanea** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 67, tab. III, fig. 13. — Peritheciis totaliter ligno immersis, globosis, parum applanatis, tantum ostiolo superficiem ligni perforantibus; ascis cylindricis mox evanidis; sporidiis uniseriatis, cylindricis, luteo-fuscis, demum castaneis, quadrilocularibus, 12 × 3. 2210

Hab. in ligno putri in Hungaria.

5. **Trematosphæria caryospora** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 71. — Peritheciis totaliter ligno immersis, ostiolo rotundo, emerso, superficiem ligni superante, nigris; ascis cylindricis longe pedicellatis, 3-8-sporis; sporidiis uniseriatis, fusiformibus, apicibus rotundatis, 5-7-septatis et loculis mediis duobus fuscis, fere nigris, reliquis fuscescentibus, 40 × 8. 2211

Hab. in ligno putri in Hungaria.

6. **Trematosphæria astroidea** (Fr.) Ellis, Proc. Acad. Philad. 1895, p. 24, *Sphæria astroidea* Fr. in herb. Schweinitz. — Peritheciis gregariis, superficialibus, ovato-globosis, nigris, basi pilis paucis, brevibus, setiformibus obsitis, ostiolo minuto, acute conico; ascis non visis; sporidiis oblongo-fusoideis, 3-4-septatis, pallide brunneis, 12-15 × 3-3 $^1/_2$. 2212

Hab. in ligno putri, Bethlehem, Amer. bor.

7. **Trematosphæria confertula** (Schw.) Ellis, Proc. Acad. Philad. 1895, p. 25, *Sphæria confertula* Schw. Syn. N. Amer. n. 508. — Peritheciis confertissimis, subiculo brunneo, fibroso, globosis, circiter $^1/_3$ mm. diam., demum apice collabentibus et cupuliformibus, basi pilis erectis septatis setiformibus brunneis vestitis; ascis clavato- 2213

cylindraceis, stipitatis, paraphysatis, octosporis, p. sp. 60-67 × 12; sporidiis distichis, oblongis, leniter curvulis, primo hyalinis, uniseptatis, dein brunneis et 3-septatis, sed non constrictis, 18-22 × 6-7.

Hab. in ligno putri, Bethlehem, Amer. bor.

8. **Trematosphæria kilimandscharica** P. Henn. Pilz. Ostafr. p. 32. — 2214
Peritheciis sparsis v. gregariis, semiimmersis, griseo-brunneis, deinde superficialibus, carbonaceis, atris, ostiolis subpapillatis, dein pertusis, pallidis, ca. 1 mm. diam.; ascis clavatis v. oblongo-cylindraceis, 8-sporis, paraphysatis, 80-120 × 10-16; sporidiis distichis, subconglobatis v. submonostichis, oblongis, obtusis, primo 4-guttulatis, deinde 3-septatis, constrictis, flavo-fuscis, dein atro-fuscis, 16-30 × 10 v. 30 × 15.

Hab. in cortice arborum in Africa trop. (Volkens).

9. **Trematosphæria fraxinicola** Sacc. et Syd. Sic dicenda est *Trematosphæria Fraxini* Ell. et Ev. in Syll. XI, p. 329, quum exstet anterior *Trematosphæria Fraxini* Rich. in Syll. IX, p. 812.

SPORORMIA De Not. — Syll. II, p. 123, IX, p. 816, XI, p. 329.

1. **Sporormia subticinensis** Mout. Compt. rend. Bull. Soc. Roy. Bot. 2215
Belg. XXXVI, 1897, 2, part. p. 14. — Peritheciis in materia sordida grumoso-gelatinosa gregatim nidulantibus, atris, globosis, $^1/_2$ mm., coriaceis, ostiolo brevi latiusculo, discoideo; ascis clavatis, pedicellatis, 8-sporis, 130-145 × 21-22, p. s. circ. 115 μ. long.; paraphysibus numerosis, filiformibus; sporidiis 3-4-seriatis, cylindricis, apicibus obtusis, olivaceo-fuscis, 7-septatis, ad septa constrictis, articulis subcuboideis absque zona gelatinosa, 60-70 × 8 10, subinde curvulis.

Hob. supra lignum fimo inquinatum pr. Liège Belgii. — A *Sp. gigaspora* Fckl. statura minori, ascis clavatis, a *Sp. ticinensi* Pir. sporidiis longioribus, peritheciis globosis præcipue recedit.

2. **Sporormia intermedia** Awd. Sacc.-Syll. II, p. 126. — var. **lagopina** 2216
Bres. Malpighia XI. 1897, p. 52. — Ascis 140–160 × 16; sporidiis 36-42 × 8-9.

Hab. in fimo Tetraonis Lagopodis in Italia boreali.

PSEUDOVALSA Ces. et De Not. — Syll. II, p. 135, IX, p. 820, XI, p. 330.

1. **Pseudovalsa Coriariæ** F. Tassi, Atti d. R. Acad. dei Fisiocr. Siena 2217
4 ser. vol. VIII, 1897, p. 4, fig. 2. — Stromatibus innatis vetusto cortice, dein erumpenti-superficialibus, atris, 1-2 mm. longis, oblon-

gis; perithecis in singulis stromatibus paucis, 1-3, immersis, sphæroideis, nigris, ostiolo prominulo; ascis 8-sporis, brevissime crasse pedicellatis, cylindraceis, apice rotundato-attenuatis, paraphysibus filiformibus, gracilibus obvallatis, 100-120 × 6 1/2-10; sporidiis recte v. oblique monostichis, oblongis, 12-16 × 5-6, initio continuis, hyalinis v. lutescentibus, dein 1-septatis, inde 3-septatis, fuligineis.

Hab. in cortice Coriariæ myrtifoliæ in horto bot. Senensi, Italia bor.

2. **Pseudovalsa occulta** (Schw.) Ellis, Proc. Acad. Philad. 1895, p. 27; 2218
Sphæria occulta Schw. in herb. — Stromatibus corticalibus, orbicularibus, linea non cinctis, 2-3 mm. diam., convexis, epidermide ostiolis obscuris perforata tectis; peritheciis in quovis stromate 1-5, globosis, 3/4-1 mm. diam., basi ligno leniter immersis, disco minuto nigro orbiculari v. anguste elliptico præditis; ascis late clavato-cylindraceis, 180-210 × 20-30 (stipite brevissimo incluso), octosporis, paraphysibus filiformibus parce ramosis vel sæpius simplicibus obvallatis; sporidiis distichis late fusoideo-oblongis, obtusis, 3-septatis, 45-65 × 13-16, initio hyalinis tandem brunneolis.

Hab. in ramis corticatis in America bor. — Differt a *P. Malbrancheana* ascis octosporis sporidiisque triseptatis utrinque non hyalinis.

THYRIDARIA Sacc. — Syll. II, p. 140, IX, p. 821, XI, p. 331.

1. **Thyridaria rigniacensis** Sacc. et Flag. Bull. Soc. Myc. de Fr. 1896, 221
p. 66, tab. V, fig. 7. — Perithèciis hinc inde pluribus confertis, peridermio atrato tectis lignoque sæpe nigrificato impositis, globosis, atris, 0,5 mm. diam., ostiolo papillato erumpente; ascis clavatis, apice rotundatis, 90 × 8-9 (parte sporif.), in stipitem 40-45 μ. longum attenuatis, filiformi-paraphysatis, 8-sporis; sporidiis oblongis, interdum clavulatis, utrinque obtusulis, 3-septatis, non v. leviter constrictis, 4-guttatis, olivaceis, 12-14 × 4-5.

Hab. in ramis emortuis Ulicis europæi, Rigny Galliæ. — Affinis *Th. cutypoidi,* sed asci longissime stipitati etc.

KALMUSIA Niessl — Syll. II, p. 142, IX, p. 822, XI, 331.

1. **Kalmusia Hazslinszkyana** Sacc. et Syd. *Kalmusia Eutypa* Hazsl. 22
Math. es term. Közlem. XXV, 2, Budapest 1892, p. 233, tab. XV, fig. 59, nec (Fr.) Sacc. — Stromate spurio extenso, nigro vel cinereo, ex strato supremo ligni et mycelio nigro formato, glabro; perithecio solummodo ostiolis semiglobosis emergentibus, nunc

spermatophoris spermatia oblonga achroa ferentibus, nunc ascophoris; ascis cylindricis sessilibus vel breviter stipitatis, paraphysatis; sporidiis 24 μ. long., quadri- rarius trilocularibus.

Hab. in ligno Aceris Pseudoplatani in Hungaria. — Habitus *Eutypæ Acharii.*

2. **Kalmusia schizostoma** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 232, tab. XV, fig. 60. — Rostris peritheciorum crassis emergentibus e stromate hemisphærico; ostiolis primum fissis, denique patellæformibus; ascis fusiformibus breviter stipitatis, apice rotundatis, 8-sporis; sporidiis distichis, 24-28 × 6-7 quadriloculatis. 2221

Hab. in truncis putridis Aceris in Hungaria. — Habitus *Eutypæ crustatæ.*

3. **Kalmusia Tranzscheliana** Jacz. Bull. Soc. Imp. des Natur. de Moscou, 1896, p. 73. — Stromate diatrypiformi, effuso, superficiem nigrificante; perithecis sparsis, globosis, ligni substantia immutata immersis, ostiolo papilliformi, prominulo; ascis clavatis, stipitatis, 95-100 × 11-12; paraphysibus numerosis, ascos superantibus; sporidiis octonis, supra in asco distichis, basi monostichis, clavatis, rectis v. curvulis, brunneo-olivaceis, 3-septatis, medio constrictis, 17-18 $^1/_2$ × 5-6 $^1/_4$. 2222

Hab. in ligno emortuo Populi Tremulæ, Smolensk Rossiæ. — *K. Ebuli* affinis.

MELOGRAMMA Fr. emend. Tul. — Syll. II, p. 144, IX, p. 824, XI, p. 331.

1. **Melogramma æsculinum** Otth, Bern. Mittheil. 1870, p. 101. — Erumpens, cortici adnatum, peridermio lacerato cinctum, subdisciforme, nigro-fuscum, superficie leniter tuberculosum; perithecis arcte connatis, a stromate vix discretis, ostiolis minutissimis papillatis; ascis clavatis, octosporis; sporidiis oblongo-ellipsoideis, 18 × 6, torulosis, 3-septatis, olivaceo-brunneis, intricato-conglobatis; paraphysibus filiformibus. 2223

Hab. in ramis Æsculi Hippocastani in Helvetia.

2. **Melogramma olivascens** Otth, Bern. Mittheil. 1870, p. 100. — Stromate cortici adnato, intus nigro-fusco, verruciformi, erumpente, peridermio lacero cincto; perithecis deorsum invicem et cum stromate connatis, sursum liberis, furfure flavido- olivascente obductis, ostiolo conico, brevi, nigro, punctiformi-prominulo; ascis longe clavatis, deorsum attenuato-subulatis, 8-sporis; spori- 2224

diis fusoideis, curvulis, 38-42 × 9, e pallido brunneis, 1-septatis, subconstrictis, 4-guttatis, monostichis v. subdistichis.

Hab. in ramis dejectis Fagi in Helvetia.

3. **Melogramma horridum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 134. 2225
— Stromatibus elongatis, $^1/_2$ cm. altis, 2-3 mm. latis, dense cæspitose confertis subconfluentibusque, superficie colliculosa, ostiolis quadrisulcatis, firmis, echinatis asperatis; peritheciis ovato-globosis, $^1/_3$-$^1/_2$ mm. diam., tenue coriaceo-tunicatis, intus atris nitidisque, superficie stromatis immersis; ascis cylindraceis, 100–110 × 10 (p. sp. 80-85 × 10); sporidiis uniseriatis, ellipticis, hyalinis, 3-septatis, 6-guttulatis, vix constrictis, 14-16 × 7-8 (postremo interdum muriformibus).

Hab. in ramis Fagi ferrugineæ in Canada (Dearness). — Habitu *Eutypam spinosam* in memoriam revocat.

4. **Melogramma Betulæ** Oud. et Destrée, Révis. de Champ. II, p. 320. 2226
— Stromatibus numerosis, sine ordine dispositis, primo epidermide tectis, dein erumpentibus et epidermide cinctis, conicis, nigris, $^1/_2$-1 mm. diam.; peritheciis 1-3 in quoque stromate, vix prominentibus, collo brevi obtuso; ascis anguste clavatis, breve stipitatis, 160-180 × 6, octosporis; sporidiis primo distichis, dein monostichis, cylindraceo-fusiformibus, rectis v. lenissime curvulis, hyalinis, continuis, primo 3-guttulatis, dein subfuliginosis et 3-septatis, haud angustatis, 22-26 × 5-5 $^1/_2$; paraphysibus articulatis, ascos multo superantibus.

Hab. in ramis Betulæ albæ in Hollandia (Destrée).

5. **Melogramma boreale** Ell. et Ev. Proc. Acad. Philad. 1895, p. 426. 2227
— Stromatibus gregariis, erumpentibus, epidermide lacerata cinctis, suborbicularibus v. irregularibus, 1-2 mm. diam., interdum confluentibus et subflexuosis, nigris; ostiolis obtusis, prominentibus; peritheciis stromate innatis, haud numerosis; ascis clavato-cylindraceis, 75-80 × 12, breve stipitatis, paraphysatis, octosporis; sporidiis distichis, clavato-oblongis v. ovato-oblongis, medio uniseptatis, ad septum constrictis, cellulis demum in longitudine septatis, leniter attenuatis, non acutis, 10-13 × 3 $^1/_2$-4 $^1/_2$.

Hab. in cortice Abietis, Newfoundland Amer. bor. (Waghorne).

6. **Melogramma Egelingii** Ell. et Ev. Bull. Torr. Bot. Club. 1895, 2228
p. 440. — Stromatibus subcuticularibus, 1-2 mm. diam., ovatis, apice erumpentibus, intus albis et granulosis, demum frustulosis; peritheciis 14-20 in quoque stromate, peripheriis, ovatis, 200 μ. altis, 150 μ. latis, nigris, immersis, demum subliberis, supra in

ostiolum demum perforatum obtusum acutum angustatis; ascis clavato-cylindraceis, breve stipitatis, paraphysatis, p. sp. 75-85 × 12; sporidiis distichis, cylindraceis, utrinque obtuso-rotundatis, 5-septatis, ad septa plus minusve constrictis, medio plerumque incrassatis, luteo-brunneis, demum opacis, 20-23 × 6.

Hab. in foliis emortuis Agaves spec., Mexico (Egeling).

Sect. 7. Hyalophragmiæ.

SPHÆRULINA Sacc — Syll. II, p. 186, IX, p. 846 XI, p. 336.

1. **Sphærulina phellogena** D. Sacc. Malp. 1898, p. 209, t. VII, f. 4. — 2229
Peritheciis laxe gregariis, minimis, 100-120 μ. diam., innato-erumpentibus, papillulatis, globulosis, nigris, contextu celluloso, brunneo; ascis rosulatis, clavatis, subsessilibus, sinuatis, apice rotundatis, octosporis, 70-75 × 15-18, aparaphysatis; sporidiis inæqualiter distichis, oblongo-clavulatis, 3-septatis, raro 4, ad septum medium constrictis, apice rotundatis, 22-24 × 8, hyalinis.

Hab. in cortice suberoso ramulorum Acerie campestris, vix emortuorum, in Italia boreali.

2. **Sphærulina Carestiæ** Sacc. Malpighia XI, 1897, p. 288. — Peritheciis laxe gregariis, punctiformibus, subcutaneis, nigris, 100-150 μ. diam.; ascis rosulatis oblongo-saccatis, subsessilibus, apice obtuse acutatis, aparaphysatis, 26-36 × 10-12, octosporis; sporidiis basi 3-4-stichis, fusoideo-oblongis v. clavulatis, 15-18 × 4, rectis curvulisve, 3-septatis, non vel vix constrictis, hyalinis. 2230

Hab. in caulibus mortuis Betonicæ officinalis, Riva-Valdobbia, Italia (Carestia).

3. **Sphærulina vulpina** Lamb. et Fautr. Rev. Mycol. 1896, p. 71. — 2231
Peritheciis sparsis, adhærentibus, membranaceis, pallide luteis, poro amplo pertusis; ascis clavatis, breve stipitatis, paraphysibus nullis; sporidiis di- vel tristichis, rectis, obtusis, hyalinis, 5-6 septatis, utroque loculo uniguttulatis, circiter 40 × 8.

Hab. in calamis foliisque Caricis vulpinæ in Gallia.

4. **Sphærulina muscicola** Pat. Enum. Champ. Tunisie 1892, p. 13, 2232
tab. I, fig 6. — Peritheciis sparsis, subepidermicis, minutissimis, 100 μ. diam., globosis, brunneis, membranaceo-coriaceis, non carbonaceis, dstiolatis, ostiolis epidermidem rumpentibus; ascis subsessilibus, apice obtusis, 35-40 × 7-8, octosporis, aparaphysatis; sporidiis distichis, hyalinis, rectis v. curvulis, fusiformibus, acutis, 3-septatis, ad septa non constrictis, 10-12 × 1 $^1/_2$-2.

Hab. in pedunculis urnisque Muscorum, Tunisia.

5. **Sphærulina tiliaris** Fautr. et Lamb. Rev. Mycol. 1896, p. 144. 2233
— Peritheciis epidermide velatis, applanatis, irregularibus, minutis; paraphysibus nullis; ascis piriformibus, 20-30 × 20-22; sporidiis cumulatis, hyalinis, conico-truncatis, 4-septatis, septis constrictis, 18–20 × 5–7.

Hab. in ramis Tiliæ in Gallia, socia *Didymella tiliaginea.*

METASPHÆRIA Sacc. — Syll. II, p. 156, IX, p. 825, XI, p. 333.

1. **Metasphæria rubicola** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 279. 2234
— Peritheciis sparsis v. seriatim dispositis, interdum 3-4 associatis, basi crusta tenui stromatica connexis, globosis, 400-500 μ. diam., intus schistaceis, cortice immersis ac in lignum penetrantibus, sed apice ostioloque papilliformi erumpentibus; ascis cylindraceis, subsessilibus, paraphysatis, 100-115 × 10-12; sporidiis monostichis, oblongis v. oblongo-ellipticis, 3-septatis, non constrictis, utrinque rotundatis obtusisque, hyalinis, 15-20 × 8-10.

Hab. in sarmentis emortuis Rubi deliciosi, Colorado Amer. bor.

2. **Metasphæria corticola** (Fckl.) Sacc. Syll. II, p. 166. — f. **Rubi occidentalis** Vestergr. Bot. Notis. 1897, p. 260. — Peritheciis peridermate nigricante velut clypeo tectis, vix papillatis, demum vertice subprominulis; ascis 75-95 × 7-9, aparaphysatis, fasciculatis, cylindricis, breve stipitatis v. subsessilibus, apice rotundatis, non incrassatis; sporidiis 13-16 × 5–7, octonis, oblique monostichis, cylindraceo-oblongis, utrinque rotundatis, distinctissime 3-septatis, sæpissime ad septum medium constrictis, eguttulatis, hyalinis. 2235

Hab. in sarmentis Rubi occidentalis horti bot. Upsaliensis, Suecia.

3. **Metasphæria seriata** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 279. 2236
— Peritheciis semierumpentibus, globosis, minutis, 80–100 μ. diam., in series angustas elongatas, complura cm. longas ac $^1/_2$ cm. latas dispositis, superficiem caulis leviter nigrificantibus, ostiolis papilliformibus, indistinctis; ascis clavato-cylindraceis, sessilibus, 45-50 × 8-10, paraphysatis, 8-sporis; sporidiis conferto-distichis, fusoideis, hyalinis, subtiliter 1-3-septatis, 25–27 × 3.

Hab. in caulibus Umbelliferarum, Colorado Amer. bor.

4. **Metasphæria Artemisiæ** Pat. Énum. Champ. Tunisie 1892 p. 13. 2237
— Peritheciis minutissimis, nigris, semiimmersis, globosis; ostiolo brevi, crasso; ascis clavatis, octosporis; paraphysibus numerosis;

sporidiis hyalinis, fusiformibus, utrinque acutis, rectis v. leniter curvulis, 5-septatis, ad septa constrictis, loculis omnibus grosse uniguttatis, 35-40 × 8-10.

Hab. in caulibus emortuis Artemisiæ Herbæ-albæ, Tunisia.

5. **Metasphæria ambrosiæcola** Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 8. — Peritheciis sparsis v. gregariis, immersis, erumpentibus, depressis, demum cupulatis, papillatis, nigris, 250-300 μ. diam.; ascis cylindraceo-clavatis, 40-60 × 10-12, paraphysibus filiformibus obvallatis; sporidiis hyalinis, fusoideo-cylindraceis, utrinque rotundatis, rectis v. leniter curvulis, subtiliter 1-3-septatis, leniter constrictis, 20-35 × 3-4, oblongis, mono- vel distichis. 2238

Hab. in caulibus emortuis Ambrosiæ artemisiæfoliæ, Auburn, Alabama Amer. bor.

6. **Metasphæria tetraspora** Delacr. Bull. Soc. Mycol. de France XIII, p. 126, cum icone. — Peritheciis immersis, ostiolo brevi, erumpente, 250 μ. diam.; ascis subclavatis, tetrasporis, 70 × 13-14, sporidiis hyalinis, rectis v. interdum paulum arcuatis, subfusoideis, 4 vel 5-septatis, 22-24 × 5-6, distichis; paraphysibus gracilioribus, interdum ramosis. 2239

Hab. in caule exsiccato Linariæ in Gallia.

7. **Metasphæria fraxinicola** (Otth) Sacc. Hedw. 1896, p. XXX, *Cladosphæria* Otth, Bern. Mittheil. 1870, p. 107. — Peritheciis globosis gregariis, cortici immersis et cum ejus strato supremo emergentibus, ostiolo conico per peridermium subpustulatum vix erumpente; ascis cylindricis, octosporis; sporidiis monostichis, oblongo-cylindraceis, rotundato-obtusis, hyalinis, 18-20 × 6, trilocularibus, tritorulosis, triguttatis; paraphysibus longis, filiformibus. 2240

Hab. in ramis corticatis Fraxini in Helvetia. — Verisimiliter *Melomastiæ* spec.

8. **Metasphæria Callunæ** Fautr. Rev. Mycol. 1896, p. 70. — Peritheciis minutis, applanatis, subsuperficialibus, carbonaceis, atro-nitidis, primo clausis dein poro irregulari pertusis; ascis ventricosis, sessilibus, 50-80 × 15-18, 6-sporis; paraphysibus filiformibus, curvulis, ascos superantibus; sporidiis distichis v. cumulatis, cylindraceis, rotundatis, hyalinis, 3-septatis, ad septa constrictis, loculo extremo parum incrassatis, 20 × 8. 2241

Hab. in ramulis vivis Callunæ vulgaris, socia *Didymella Picconii,* in Gallia.

9. **Metasphæria betulina** (Hazsl.) Sacc. et Syd. *Leptosphæria betulina* 2242

Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 152. — Peritheciis dense gregariis, epidermidem elevantibus perforantibusque, solummodo ascis et pseudoparaphysibus farctis; ascis cylindricis, breviter stipitatis; sporidiis vulgo fusiformibus, apice obtusis curvatisque ibique raro cuneiformibus, 5-7 guttulis monostiche dispositis farctis, distichis, hyalinis, 40 × 5-6.

Hab. in ramis Betulæ in Carpathis centralibus Hungariæ.

10. **Metasphæria corylina** Ell. et Holw. Bull. Lab. Nat. Hist. Jowa 2243
1895, p. 43. — Peritheciis gregariis, tectis, circiter $^1/_2$ mm. diam., intus albis, globosis, epidermidem in pustulas elevantibus, ostiolo papilliformi, perforato, emergente; ascis clavato-cylindraceis, p. sp. 130-140 × 20, breve stipitatis, pseudoparaphysatis; sporidiis distichis, oblongis, subinæquilateralibus, hyalinis, 3-septatis, leniter constrictis, 25-30 × 10-12, utrinque obtuse rotundatis.

Hab. in ramis emortuis Coryli, Decorah Jowa, Amer. bor. (Holway). — *M. lejostegæ* affinis, sed ascis sporidiisque majoribus diversa.

11. **Metasphæria quercina** Ell. et Ev. Proc. Acad. Philad. 1895, 2244
p. 423. — Peritheciis gregariis, immersis, globosis, 250-300 . diam., epidermidem ostiolo papilliformi pertusam in pustulas elevantibus; ascis cylindraceis, breve stipitatis, 170-190 × 12; paraphysibus filiformibus, ascos longitudine non æquantibus; sporidiis monostichis, oblongis, 3-septatis, ad septa constrictis, hyalinis, 20 × 7-9.

Hab. in ramis emortuis Quercus tinctoriæ, New Jersey, Amer. bor.

12. **Metasphæria Agaves** Roll. Bull. Soc. Myc. de Fr. 1896, p. 4, 2245
tab. II, fig. 6. — Peritheciis nigris, gregariis, erumpentibus, globosis, ostiolatis, $^1/_4$ mm. latis; ascis fusiformibus, 70 × 20; sporidiis hyalinis, oblongis v. subfusiformibus, subdistichis v. inordinatis, primo 1-, dein 4-septatis, ad tertium septum haud centrale magis constrictis, sæpe guttatis, 16-20 × 4-6; paraphysibus filiformibus, crassiusculis.

Hab. in caulibus emortuis Agaves, Antibes Galliæ.

13. **Metasphæria Funkiæ** Bres. Hedw. 1896, p. 62. — Peritheciis 2246
sparsis, globoso-obovatis, epidermide tectis, apice erumpentibus, contextu fuligineo-atro, parenchymatico, $^1/_3$ mm. latis; ascis clavatis, deorsum attenuatis breviterque stipitatis, 8-sporis, 100-140 × 12-15; paraphysibus numerosis, ramosis, filiformibus, $1\,^1/_2$ μ. latis; sporidiis distichis, hyalinis, 8-12 μ. latis, ad septa leniter constrictis, subfusoideis vel subclavatis, 24-30 × 7-9.

Hab. in caulibus Funkiæ univittatæ in Germania (Sydow.

14. **Metasphæria Bambusæ** Roll. Bull. Soc. Myc. de Fr. 1896, p. 3, 2247
t. II, fig. 4. — Peritheciis laxe gregariis, rotundis, nigris, epidermide velatis, ore papillato erumpentibus, $^1/_4$ mm. latis; ascis subfusiformibus, ventricosis, in stipitem curtum, crassum desinentibus, 50-60 × 15, octosporis; sporidiis subdistichis aut inordinatis, hyalinis, primo fusiformibus, 1-septatis, dein ovato-oblongis, obtusis, 4-septatis, ad tertium septum valde et ad cetera leniter constrictis, loculis guttatis, 18-20 × 5-6; paraphysibus numerosis, valde diversis, crassiusculis, granulatis, ramosis, nodosis, ad apicem sæpe clavatis.

Hab. ad corticem Bambusæ, Golfe Juan Galliæ. — *M. Craterio* et *M. calaminæ* vicina, sed pluribus notis diversa.

15. **Metasphæria taminensis** Wegelin, Mitth. d. Thurgau. Naturf. 2248
Ges. XII, 1896, p. 4 extr. tab. II, fig. 6-7. — Peritheciis gregariis, matrice brunneo-tincta immersis, prominulis, ellipsoideis, 300 μ. longis, 200 μ. latis, ostiolo nigro papillato pertusis; ascis sessilibus, cylindrico-clavatis, octosporis, 80-100 × 12-14, paraphysibus numerosis obvallatis; sporidiis oblique distichis, fusiformibus, utrinque rotundatis, sæpe curvulis, 5-septatis, initio medio parum constrictis, hyalinis, 21-22 × 5-5 $^1/_2$, loculis crasse 1-guttatis, demum ad omnia septa constrictis, loculo tertio vix inflato.

Hab. in culmis siccis Festucæ, Helvetia.

16. **Metasphæria Bloxami** Sacc. et Syd. Sic nominanda est *Metasphæria rubida* (Blox.) Cke. in Syll. XI, p. 335, quum exstet anterior *M. rubida* Ell. et Ev. in Syll. IX, p. 835.

17. **Metasphæria ampelogena** Sacc. et Syd. Sic nominanda est *Metasphæria pampinea* Pass in Syll. IX, p. 838, quum exstet anterior *M. pampinea* Sacc. in Syll. I, p. 164.

CHARRINIA Viala et Rav. Compt. rend. 1894, 20 août.; Zeitschr. f. Pflanzenkrankh., 1895, p. 116. (Etym. a cl. doct. Charrin). — Perithecia sphæroidea, late pertusa. Asci octospori, longe paraphysati. Sporidia 1-3-septata, hyalina Stat. pycn.: *Coniothyrium Diplodiella*. — An genus sat diversum a *Metasphæria*?

1. **Charrinia Diplodiella** Viala et Rav. l. c. Status pycn.: *Coniothyrium* 2249
Diplodiella Sacc. Syll. III. p. 310; *Phoma Diplodiella* Speg. Rev. Vitic. et Enol. 1878, n. 4. — Perithecis sphæroideis, 140-160 μ. diam., nigris, late pertusis; ascis fusiformibus, 8-sporis, hyalinis, 56 μ. longis; sporidiis 15 × 3-4, 1-3-septatis, hyalinis.

Hab. in baccis maturis Vitis viniferæ in Italia, Gallia.

MASSARINA Sacc.-Syll. II, p. 153, IX, p. 824, XI, p. 332.

1. **Massarina macra** Vestergr. Bot. Notis. 1897, p. 257. — Perithe- 2250
ciis sparsis, ligno maxima parte infossis, nigro-annulatis, globosis, circiter 1 mm. diam., verti e peridermate pustulatim elevato, adhærente tectis, demum ostiolo subprominulis, contextu membranæ obscuro impellucido; ascis cylindraceo-clavatis, apice subdetruncatis, deorsum in stipitem breviusculum attenuatis, 400-525 × 35-40, paraphysibus gelatinosis, guttulatis 4 μ. crassis obvallatis; sporidiis octonis, mono-vel distichis, cylindricis, utrinque abrupte obtuseque acutatis, 4-locularibus, loculis guttula maxima repletis, ultimis medios 1-2 μ. in longitudine excedentibus, membrana solida, crassa, utrinque papilliformiter, ad septa triangulariter incrassata, non constricta præditis, perfecte hyalinis, obsoletis et collapsis solum subfuscescentibus, 56–66 × 17-20, sæpissime 65 × 18, strato mucoso, medio sæpe velut septo dimidiato, 7–9 μ. lato cinctis.

Hab. in ramis emortuis corticatis Aceris platanoidis in regione Upsaliensi Sueciæ. — A *M. inquinante,* cujus perithecia aliquando simul inventa sunt, notis allatis plane diversa.

2. **Massarina eburnella** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 66, 2251
tab. V, fig. 9. — Peritheciis gregariis, globulosis, epidermide tumidula atrata tectis, vix papillatis, 0,7 mm. diam.; ascis tereticlavatis breve stipitatis, apice rotundatis, 180 × 18–19, octosporis, parce spurie paraphysatis; sporidiis distichis, breve fusoideis, rectis v. curvulis, cuboideo-4-nucleatis, demum 3-septatis, non constrictis, 26 × 9, strato hyalino mucoso obductis (cum muco 30 × 14).

Hab. in ramulis Carpini Betuli pr. Rigny Galliæ. — A *M. eburnea* præsertim peritheciis sporidiisque crassioribus recedit.

3. **Massarina Chrysopogonis** Atk. Bull. Cornell Univ. III. n. 1, 1897, 2252
p. 7. — Peritheciis immersis, epidermide elevata velatis, membranaceis; ascis clavatis, breve pedicellatis, 75-90 × 12-14, paraphysibus filiformibus obvallatis; sporidiis subdistichis, hyalinis, oblongo ellipticis, 4-5-septatis, strato mucoso late elliptico 5–8 μ. crasso obductis, 20-25 × 5–6.

Hab. in culmis emortuis Chrysopogonis nutantis, Auburn, Alabama Amer. bor.

SACCARDOELLA Speg. — Syll. II, p. 190, XI, p. 336.

1. **Saccardoella Berberidis** Eliasson, Fungi Upsalienses in Bih. K. 2253
Sv. Vet.-Akad. Handl. Bot. XXII, Afd. III, n. 12, 1897, p. 13, fig. 1. — Peritheciis sparsis, majusculis, in ramorum superficie

nidulantibus, ostiolo solum supra corticis superficiem exsertis, atris, carbonaceis; ascis 315-360 × 12-13, elongato-cylindraceis, apice incrassatis et plus minus truncatis; paraphysibus 1,5 μ. latis, filiformibus, pluriguttulatis obvallatis; sporidiis 35-65 × 10, monostichis, circiter 20-locularibus, utrinque acutatis, hyalinis, setulis non præditis.

Hab. in ramis aridis corticatis Berberidis vulgaris pr. Haga in Suecia. — *S. transilvanicæ* (Rehm) Berl. affinis, differt ascis et sporidiis majoribus.

HYPOSPILA Fr. — Syll. II, p. 189, IX, p. 849, XI, p. 336.

1. **Hypospila cordiana** Ell. et Kels. Bull. Torr. Bot. Cl. 1897, p. 208. 2254
— Peritheciis innatis, minutis globosis, clypeo stromatico nigro suborbiculari tenui, $^1/_2$ mm. diam., obtectis, concentrice dispositis, in maculis epiphyllis pallide flavis bullatim inflatis, indefinitis circiter $^1/_2$ cm. diam. insidentibus; ascis clavato-cylindraceis, breviter stipitatis, octosporis, 70-80 × 10-12, paraphysatis?; sporidiis distichis fusoideis, 3-4-nucleatis, virescenti-hyalinis, 15-20 × 3 $^1/_2$-4, imo apice vulgo attenuatis acutisque, maturis verisimiliter 3-septatis.

Hab. in foliis Cordiæ collococcæ, St. Croix Indiæ occid.

ZIGNOELLA Sacc. — Syll. II, p. 214, IX, p. 860, XI, p. 339.

1. **Zignoella Magnoliæ** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, 2255
p. 211. — Peritheciis in areis albescentibus, dense sparsis et interdum confluentibus, hemisphæricis, basi matrici leniter immersis, superne rotundatis, non papillatis, denique ostiolo magno, rotundo perforatis, atris, carbonaceis, superficie asperatis, ca. $^1/_2$ mm. diam.; ascis anguste ellipticis, longe stipitatis, 130-150 × 12-15; paraphysibus copiosis, filiformibus, ascos superantibus; sporidiis hyalinis ellipticis, utrinque rotundatis, 4-guttatis, demum 3-septatis, non constrictis, 22-24 × 5-6.

Hab. in cortice emortuo Magnoliæ glaucæ in Mississippi Amer. bor.

2. **Zignoella fraxinicola** Lamb. et Fautr. Rev. Mycol. 1896, p. 145. 2256
— Peritheciis superficialibus, laxe gregariis, contextu carbonaceo parenchymatico tenui, depressis, cupulatis, late apertis; ascis clavatis, breve pedicellatis, 60-80 × 8-10, paraphysatis; sporidiis fusiformibus, obtusis, 3-septatis, ad septa constrictis, loculo extremo incrassatis, hyalinis, 16-20 × 7-8.

Hab. in ligno decorticato putrido Fraxini in Gallia.

3. **Zignoella Spissiana** Lamb. et Fautr. Rev. Mycol. 1897, p. 56. — 2257

Peritheciis superficialibus, sparsis v. 15–20 aggregatis, ovalibus, ostiolis indistinctis acutis v. obtusis; ascis clavatis, basi in punctum terminatis, 90-100 × 10; sporidiis sursum in asco cumulatis, hyalinis, simplicibus, guttulatis, rectis, sæpe arcuatis, parum fusoideis, 35-40 × 4; paraphysibus filiformibus, guttulatis.

Hab. in cortice Ulmi campestris et suberosæ in Gallia. — Inter *Z. collabentem* et *macrosporam* fere media.

4 **Zignoella fallax** Sacc. Syll. II, p. 218. — * **Ulmi** Lamb. Rev. Mycol. 1897, p. 55. — Ascis clavatis, 120 × 12; sporidiis hyalinis, 5-septatis, 25-33 × 6-8. 2258

Hab. in cortice sicco Ulmi in Gallia.

5. **Zignoella eumorpha** Penz. et Sacc. Malpighia XI, 1897, p. 403. — Peritheciis dense gregariis, superficialibus aterrimis, nitidulis, globosis, acutiuscule papillatis, $^1/_4$ mm. diam., glabris; ascis clavatis, apice rotundatis, breve acuteque stipitatis, 60–70 × 11-12, aparaphysatis (?), octosporis; sporidiis tristichis, tereti-fusoideis, utrinque obtusulis, 28-35 × 4-4 $^1/_2$, rectis curvulisve, 7-septatis, non constrictis, hyalinis. 2259

Hab. in lignis putrescentibus, Java. — Affinis *Z. dolichosporæ* Sacc., *Z. intermediæ* Pass. et *Z. macrosporæ* Sacc., sed ascis, sporidiorum forma et septatione dignoscenda.

6. **Zignoella acervata** Penz. et Sacc. Malpighia XI, 1897, p. 403. — Peritheciis hinc inde in acervulos planos, superficiales, 1 $^1/_2$-2 mm. diam., congregatis, globoso-conoideis, aterrimis, non omnino levibus, papillatis, 0,4 mm. diam., subcarbonaceis, contextu atro-fuligineo; ascis elongatis (jam fere resorptis); sporidiis distichis, teretifusoideis, curvulis, utrinque rotundatis, 5-(raro 3-)septatis, constrictis, 36 × 6-8, hyalino-chlorinis. 2260

Hab. in cortice emortuo Elettariæ, Tjibodas, Java. — Habitus *Melchioriæ*, sed stroma album nullum et sporidia aliena.

7. **Zignoella interspersa** Penz. et Sacc. Malpighia XI, 1897, p. 403. — Peritheciis gregariis, alte globoso-conoideis, sed minutis, 200 × 120, demum obtusioribus, inter setulas rigidulas nigras interseminatis, atro-nitidulis, ostiolo papillato; ascis fusoideo-clavatis, brevissime stipitatis, apice obtusulis, 45-60 × 9-10, aparaphysatis (?), octosporis; sporidiis distichis v. rarius oblique monostichis, fusoideis, leniter curvis, utrinque obtusulis, 15-17 × 3 $^1/_2$-5, bi-quadrinucleatis v. granulosis, hyalinis. 2261

Hab. in cortice emortuo Elettariæ, Tjibodas, Java.

8. **Zignoella omphalostoma** Penz. et Sacc. Malpighia XI, 1897, p. 403. 2262

— Peritheciis densiuscule gregariis, superficialibus, globoso-depressis, nigris, carbonaceis, 400 μ. diam., glabris; ostiolo obtuso circa porum orbiculariter impresso; ascis tereti-clavatis, apice rotundatis, breviter stipitatis, filiformi-paraphysatis, 8-sporis: sporidiis distichis, oblongo-fusoideis, utrinque rotundatis, 18-22 × 6, rectis, 4-nucleatis, dein 3-septatis, vix constrictis, hyalinis.

Hab. in cortice stipitis Livistonæ olivæformis, ubi maculas atras, palmares efficit, in horto bot. Bogoriensi, Java. — Affinis, ut videtur, *Z. antarcticæ* Speg., sed forma peritheciorum diversa.

9. **Zignoella calospora** Pat. Journ. de Bot. 1897, p. 242. — Perithe- 2263
ciis solitariis, sparsis, superficialibus vel basi leviter insculptis, atris, conico-globosis, apice poro pertusis, glabris, 300-350 μ. diam., contextu coriaceo (non carbonaceo), laxe parenchymatico, pallide brunneo; ascis diffluentibus, longe clavatis, sursum obtuse rotundatis, deorsum attenuatis, 8-sporis, indistincte paraphysatis; sporidiis distichis, cylindraceis, sæpe flexuosis, utrinque obtusis, hyalinis, transverse 3-6-septatis, protoplasmate nitenti repletis, 90-110 × 10, non constrictis.

Hab. in thalio Castagneæ sordariæformis, Gijon Hispaniæ.

WINTERINA Sacc. emend. *Winteria* Sacc. Syll. II, p. 225, IX, p. 870, XI, p. 340, nec Rehm. — Cum sit compertum (Cfr. Wint. Pilze II, p. 280) *Winteriæ* Rehm species typicas et primarias esse hyalodictyas (cfr. ic. Wint. l. c. p. 263), putamus *Winterinam* Sacc. Syll. ad species hyalophragmias esse limitandam, *Winteriam* vero cl. Rehmii, Wint. et Berl. ad hyalodictyas. Hinc ad **Winterinam** Sacc. emend. (1891) = *Winterella* Berl. Ic. I, p. 94 (1892), spectant præceteris: **W. tuberculifera** (E. et Ev.) Sacc., **W. crustosa** (E. et Ev.) Sacc., **W rhoina** (E. et Ev.) Sacc., **W. Zahlbruckneri** (Bäuml.) Sacc., et sequentes:

1. **Winterina lobata** (Tracy et Earle) Sacc. et Syd. *Winteria* Tr. et 2264
Ear. Bull. Torr. Bot. Cl. 1896, p. 211. — Peritheciis hypophyllis superficialibus sparsis, turbinatis, supra collapsis ideoque patellatis, marginibus crassis demum varie rimosis lobatisque, tenuibus fragilibusque, indistincte cellulosis, extus nigris intus virescenti-cœruleis, 300-400 μ. diam.; ascis numerosis tenue tunicatis ovatis, breviter pedicellatis, 35 × 15, paraphysibus filiformibus gelatinosis virescentibus obvallatis; sporidiis hyalinis, anguste ellipticis acutisque, subtiliter 3-septatis.

Hab. in foliis vivis Ilicis coriaceæ, Mississippi, Florida et Georgia Amer. bor.

2. **Winterina oxyspora** (Penz. et Sacc.) Sacc. et Syd. *Winteria* Penz. et Sacc. Malpighia XI, 1897, p. 402. — Peritheciis gregariis, omnino superficialibus, hinc facillime secedentibus, globulosis, atris, 0,2-0,3 mm. diam., molliusculis et tunc callabascendo mox depresso-umbilicatis, glabris; ascis cylindraceis, (jam fere resorptis); sporidiis distichis, fusiformibus, utrinque acutissimis, curvulis, 50 × 5-6, hyalinis, plasmate 2-6-partito. 2265

Hab. in culmis crassioribus Bambusæ putrescentibus in horto bot. Bogoriensi, Java.

ACANTHOSTIGMA De Not. — Syll. II, p. 207, IX, p. 854, XI, p. 337.

1. **Acanthostigma scopulorum** Ell. et Ev. Proc. Acad. Philad. 1895, p. 414. — Peritheciis gregariis, erumpenti-superficialibus, globosis, 75-100 μ. diam., mycelio ramoso repente superficiem caulium nigrificante cinctis, setulis erectis, nigris, 3-4-septatis, 75-110 × 6-7, apice acutiuscule obtusis vestitis; ascis clavato-cylindraceis, sessilibus, 55-65 × 10-12, octosporis; paraphysibus obscuris v. nullis; sporidiis confertis, fusoideis, 4-septatis, cellulis sursum incrassatis, 22-30 × 4-4½, leniter curvulis, luteolo-hyalinis. 2266

Hab. in caulibus siccis Ligustici scopulorum, Colorado, Amer. bor. (Crandall).

2. **Acanthostigma scleracanthoides** Penz. et Sacc. Malpighia XI, 1897, p. 404. — Peritheciis laxe gregariis, superficialibus, minutissimis, 0,2 mm. diam., globosis, nigris, setulosis; setulis rigidulis, septatis, fuligineis, rectiusculis, 80-99 × 4-5; ostiolo obsoleto, obtuso; ascis crasse clavatis, apice rotundatis, breve crasseque stipitatis, 85–100 × 21-25, aparaphysatis (?), 8-sporis; sporidiis 3-4-stichis, cylindrico-fusoideis, leniter curvis, 8-10-septatis, non constrictis, hyalinis, 65-75 × 7-8. 2267

Hab. in ligno putri in horto bot. Bogoriensi, Java. — Ab *A. scleracantho* differt imprimis ascis sporidiisque crassioribus. — Var. **Elettariæ** Penz. et Sacc., l. c. — Perithecis paullo majoribus, 0,3 mm. diam.; setulis 50-60 × 6-7; ascis 90 × 18, filiformi-paraphysatis; sporidiis 50 × 5½-7, fusoideis, curvulis, 9-11-septatis, hyalinis.

Hab. in caule emortuo Elettariæ, Tjibodas Java, socia *Diaporthe javanica* Penz. et Sacc.

3. **Acanthostigma nectrioideum** Penz. et Sacc. Malpighia XI, 1897, 2268

p. 530. — Peritheciis laxe gregariis, superficialibus, globulosis, 200-230 μ. diam., setulis rigidulis, basi bulbosis, 1-cellularibus, 70-75 × 5-7, fuligineis conspersis, vertice areola calva ochracea medio obsolete pertusa præditis; contextu parenchymatico molliusculo, ochraceo-melleo, fere nectriaceo; ascis oblongis, subsessilibus, apice rotundatis, 80-90 × 15-18, octosporis, aparaphysatis; sporidiis tristichis, fusoideis, curvulis, utrinque acutiusculis, 8-10-septatis, non constrictis, 34-37 × 5, hyalinis.

Hab. in caulibus putrescentibus Elettariæ, Tjibodas ins. Java. — Species singularis, ambigua, ob contextum fere ad *Hypocreaceas* nutat, a quibus vero recedit setulis rigidis, atris etc.

4. **Acanthostigma Chusqueæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 226. 2269
— Peritheciis superficialibus, liberis, gregariis, atris, globosis, poro pertusis, 30-40 μ. diam., pilis sparsis brunneis, rectis, simplicibus, septatis, 160-200 × 8-10 vestitis, contextu coriaceo; ascis clavatis, magnis, 260 × 30, crasse tunicatis, 8-sporis, filiformi paraphysatis; sporidiis hyalinis, di-vel tristichis, rectis v. curvatis, elongato-fusoideis, transverse circiter 20-septatis, 150 × 10.

Hab. in truncis putridis Chusqueæ, in Æquatoria (v. Lagerheim).

5. **Acanthostigma Ellisii** Sacc. et Syd. Sic nominandum est *Acanthostigma parasiticum* Ell. et Ev. Sacc. Syll. XI, p. 338, quum extet anterius *A. parasiticum* (Hart.) Sacc. Syll. IX, p. 855.

HORMOSPERMA Penz. et Sacc. Malpighia, XI, 1897, p. 402. (Etym. *hormos* monile et *sperma* spora). — Perithecia superficialia, atra, globulosa, papillata, exigua, setulosa. Asci cylindracei, aparaphysati, suboctospori. Sporidia cylindrica, moniliformia, typice 8-locularia, subhyalina, loculis globoso-cuboideis, facile secedentibus,

1. **Hormosperma pusillum** Penz. et Sacc. l. c. — Peritheciis dense 2270
gregariis, minutissimis, nigricantibus, subglobosis, obtusule papillatis, 200 μ. diam., setulosis; setulis brevibus, apice obtusis, septatis, 45-50 × 6, rufo-fuscis; ascis cylindraceis, breve stipitatis, apice rotundatis, 80-90 × 7-9; sporidiis subtristichis, cylindraceis, rectis, 20-22 × 2,5, plerumque 8-cellularibus, moniliformibus, hyalinis v. dilutissime fuscidulis, articulis globoso-cuboideis, 2,5 μ. diam., facile secedentibus.

Hab. in fragmentis ligneis putridis, Tjibodas, Java. — Contextus perithecii cellulosus, rufo-fuligineus. Ob minutiem et constipationem sporidiorum intra ascum ægre eruitur an hæc vere octona

et 8-locularia sint, sed valde probabile. Fungillus singularis certe ad Hypocreaceas nutat.

LASIOSPHÆRIA Ces. et De Not. — Syll. II, p. 191, IX, p. 849, XI, p. 336.

1. **Lasiosphæria Dematium** (Hazsl.) Sacc. et Syd. *Leptospora Dematium* Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 43. — Peritheciis globosis e matrice nigrescenti emersis, apice setis opacis septatis coronatis; ascis oblongis v. clavatis, sessilibus, circiter 50 μ. longis, variante crassitie, aparaphysatis; sporidiis linearibus, cylindricis, sæpe unilateraliter parum attenuatis, obtusis, 24-26 × 2-3. 2271

   Hab. in caulibus emortuis Hyperici perforati in Hungaria.

2. **Lasiosphæria setosa** (Schw.) Ell. Proc. Acad. Philad. 1895, p. 21, *Sphæria setosa* Schw. Syn. N. Am. Fungi n. 1533 et Sacc. Syll. II, p. 404. — Peritheciis gregariis, superficialibus, ovato-conicis, circiter $^3/_4$ mm. altis, $^1/_2$ mm. latis, pilis fuscescentibus setosis obsitis, ostiolo nigro, integro v. subsulcato obtuso excepto; ascis elongatis, sursum angustatis, breve stipitatis, paraphysatis, octosporis, 100-120 × 12-15; sporidiis distichis, cylindraceis, hyalinis, nucleatis, deorsum curvatis, 45-55 × 4-5. 2272

   Hab. in lignis putridis, Salem et Bethlehem Amer. bor. — Satis affinis *L. hirsutæ*.

3. **Lasiosphæria emergens** (Schw.) Ellis, Proc. Californ. Acad. 1895, p. 21, *Sphæria emergens* Schw. Syn. Amer. bor. n. 1534, Sacc. Syll. II, p. 405. — Sparsim emergens ex subiculo, tomentum laxum referente; subiculi floccis septatis undulatis conidia terminalia luteo-brunnea globosa, 12-15 μ. diam., granulosa gerentibus; sporidiis subrectis, cylindricis, hyalinis, 28-32 × 4, demum probabiliter 3-septatis. 2273

   Hab. in lignis cariosis, Bethlehem Amer. bor. — *L. Rhacodio* affinis.

HERPOTRICHIA Fuck. — Syll. II, p. 211, IX, p. 856, XI, p. 338.

1. **Herpotrichia Schiedermayriana** Fckl.-Sacc. Syll. II, p. 211. — Var. **caldariorum** P. Henn. Hedw. 1895, p. (102). — Sporidiis plerumque septatis, vivis medio non constrictis, siccis constrictis. 2274

   Hab. in corbibus pineis in caldariis Berolini Germaniæ.

2. **Herpotrichia purpurea** Ell. et Ev. Proc. Acad. Philad. 1895, p. 415. — Peritheciis sparsis, superficialibus, hemisphæricis, $^1/_2$-$^3/_4$ mm. d., 2275

pilis purpureis, 90-140 × 3-3 $^1/_2$, continuis v. parce septatis, mox deciduis dense tectis (apice peritheciorum et ostiolo papilliformi exceptis); ascis cylindraceis, 40-50 × 3-7, breve stipitatis, aparaphysatis, octosporis; sporidiis distichis, fusoideo-oblongis, hyalinis, dein subtilissime uniseptatis, lenissime curvulis, subobtusis, 9-14 × 1 $^1/_2$-2.

Hab. in foliis culmisque emortuis Deyeuxiæ Suksdorfii, Washington, Amer. bor. (Piper).

3. **Herpotrichia Spegazzinii** Sacc. et Syd. Sic nominanda est *Herpotrichia antarctica* Speg. in ramis Chiliotrichi amelloidis, Syll. IX, p. 859, quum exstet *H. antarctica* Speg. in eadem pagina Sylloges in ramis Pernettyæ, Empetri et Escalloniæ.

CALOSPORA Sacc. — Syll. II, p. 231, IX, p. 871, XI, p. 341.

1. **Calospora Platanoidis** (Pers.) Niessl - Sacc. Syll. II, p. 231. — 2276
Forma **Sorbi** Roll. et Destrée, Supplém. au Catal. des Champ. des environs de la Haye 1897, p. 5. — Peritheciis corticolis, aliquando solitariis, sed generatim grĕgariis et circinantibus, tunc ostiolis stipatis, in discum nigrum, epidermidem perforantibus; ascis clavatis aut subfusiformibus, breviter stipitatis, 90 × 20; sporidiis subdistichis, hyalinis, cylindricis v. subfusiformibus, utrinque rotundatis et sæpe appendicula brevi ornatis, triseptatis, guttatis, 20–25 × 4–6; paraphysibus non visis.

Hab. in cortice Sorbi Ariæ in Hollandia.

2. **Calospora apatela** (Ell. et Holw.) Sacc. et Syd. *Valsa apatela* 2277
Ell. et Holw. Bull. Lab. Nat. Hist. Jowa 1895, p. 42. — Stromatibus corticolis, orbicularibus, 2-3 mm. diam.; peritheciis 6-10 in quoque stromate circinantibus, $^1/_4$-$^1/_3$ mm. diam.; ostiolis solidis, nigris, conico-cylindraceis, subtruncatis, imperfecte 4-sulcatis, peritheciorum diametrum æquantibus, per corticem erumpentibus; ascis oblongo-fusoideis v. late lanceolatis, 75-80 × 14-16, paraphysatis; sporidiis irregulariter confertis, fusoideis, 4-nucleatis, demum 3-septatis, ad septa leniter constrictis, utrinque hyalinis obtusisque, 25-40 × 6-8.

Hab. in ramis Caryæ emortuis, Decorah Jowa, Amer. bor. (Holway).

HOLSTIELLA P. Henn. Pilz. Ostafr. p. 33. (Etym. a cl. botanico C. Holst)). — Stromata superficialia, pulvinata v. hemisphærica, ostiola conico-acuta, dein annulato-depressa v. concava; perithecia numerosa immersa; asci clavati, pedicellati, octospori, paraphysati;

sporidia fusoidea v. longe clavata, multiseptata, ad septa non constricta, hyalina. — *Calosporæ* Sacc. affinis.

1. **Holstiella usambarensis** P. Henn. l. c. — Stromatibus superficialibus, gregariis, rarissime confluentibus, 1-2 1/2 mm. diam., hemisphæricis v. pulvinatis, irregulariter rotundatis, subrugosis, fulvo-brunneis v. griseo-fuscis, dein atris, intus subcroceis v. flavis dein atris; ostiolis subconico-acutis, dein annulato-depressis, numerosis, fuscis v. brunneis; perithecis immersis, numerosis, subglobosis, magnis, atris; ascis clavatis, pedicellatis, apice obtusis, 8-sporis, 80-150 × 28-35; paraphysibus hyalinis, filiformibus; sporidiis longe fusoideis, hyalinis, multiseptatis, ad septa non constrictis, 30-50 × 7-12. 2278

Hab. in ramis arboris cujusdam in Africa trop. (Holst).

Sect. 8. Phæodictyæ.

PLEOSPORA Rab. — Syll. II, p. 241, IX, p. 873, XI, p. 342.

1. **Pleospora Fumanæ** Hazsl. Math. es term. Közlem. XXV, 2 Budapest 1892, p. 155, tab. X, fig. 41. — Perithecis globosis, nigris, apice fulvis, impressis, denique urceolatis; ascis cylindricis, sessilibus; sporidiis distichis, ovalibus, fuscis, 20-24 × 9-11, septis tribus transversalibus et uno longitudinali per loculos intermedios transeunte. 2279

Hab. in caulibus Helianthemi Fumanæ in Hungaria (Lojka).

2. **Pleospora Cistorum** Roll. Bull. Soc. Myc. 1898, p. 84, t. IX, f. 6. — Perithecis epidermide velatis, nigris, gregariis, globoso-depressis, 1/2–3/4 mm. diam., ostiolo papillato erumpente, basi fibrillosis; asois cylindraceis, breve pedicellatis, 180-200 × 12, octosporis; sporidiis oblongis, utrinque subattenuatis, medio plus minus constrictis, transverse 5-septatis parceque longitudinaliter, monostichis, hyalino-flavidis, dein brunneo-fuscis, 25-28 × 8; paraphysibus filiformibus. 2280

Hab. in ramis Cistorum pr. Corte, Corsica. — A *Pl. herbarum* sporidiis monostichis, a *Pl. vulgari* ascis sporidiisque majoribus recedere videtur.

3. **Pleospora nigricans** Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 9. — Perithecis minutis, 120-150 μ. diam.; ascis ovato-obovatis 70-90 × 35-45; sporidiis confertis, ellipticis v. oblongis, utrinque 2281

rotundatis, 5-septatis, 4 cellulis mediis septo longitudinali divisis, non v. vix constrictis, brunneis, 35-40 × 16-18.

Hab. in foliis dejectis Gossypii herbacei, Alabama Amer. bor.

4. **Pleospora olivacea** Mc Alp Addit. to the Fungi on the vine in Austral. 1898, p. 45, fig. 68-71. — Peritheciis atro-nitidis, glabris, punctiformibus, sparsis; ascis clavatis v. tereti-oblongis, deorsum in stipitem basi nodulosum tenuatis, 80-100 × 15-17, crasse tunicatis, 4-8-sporis; sporidiis piriformi-ovato-oblongis, utrinque obtusis, 5-septatis, longitrorsum parce divisis ad septa non constrictis, partim distichis, 17-22 × 8-9,5. 2282

Hab. in cortice secedente Vitis pr. Melbourne Australiæ

5. **Pleospora Luciæ** Gen. de Lamarl. Rev. gén. de Bot. 1894, p. 322, fig. 34-35. — Peritheciis sparsis gregariisve, nigris, globuloso-depressis, vix papillatis; ascis cylindraceis, 125-138 × 11-12, octosporis, breve pedicellatis, paraphysatis; sporidiis oblique monostichis ovoideo-ellipsoideis, medio constrictis, utrinque rotundatis, 7-septatis muriformibusque, flavis dein olivaceo-brunneis, 17-21 × 8. 2283

Hab. in ramulis siccis Sarothamni scoparii, in silva Fontainebleau Galliæ. — A *P. Cytisi* sporidiis conspicue minoribus etc. diversa.

6. **Pleospora Hazslinszkyana** Sacc. et Syd. *Pleospora Dryadis* Hazsl Math. es term. Közlem. XXV, 2 Budapest 1892, p. 156, tab. X, fig. 42, nec (Starb.) Sacc. — Perithecii parvis, solitariis, hemisphærice emergentibus; ascis subglobosis, in basim conicam contractis, 8-sporis; sporidiis luteo-fuscis, oblongo-ovatis v. bicoctiformibus, septo crasso transversali medio et 4 tenuioribus donatis, loculis 4 mediis septo longitudinali percursis. 2284

Hab. in foliis siccis Dryadis octopetalæ in rupibus Tatræ.

7. **Pleospora Allescheri** Sacc. et Syd. *Pleospora leptosphærioides* Allesch. in Allesch. et P. Henn. Pilze aus dem Umanakdistrikt 1897, p. 9, nec Sacc. — Perithecii sparsis, innatis, dein erumpentibus, globoso-conicis, papillatis, atris; ascis clavato-cylindraceis, breviter stipitatis, octosporis, ca. 70-90 × 14-18; sporidiis subdistichis vel oblique monostichis, subfusiformibus (subclavatis), apice obtusis, deorsum magis attenuatis et obtuso-acutiusculis, medio subconstrictis, plerumque leniter curvulis, 6-8-septatis, cellulis nonnullis longitudinaliter divisis, ca. 24-30 × 8-10, aureis, dein fuscescentibus 2285

Hab. in caulibus siccis Potentillæ niveæ var. prostrata pr. Umanak Groenlandiæ (Vanhöffen).

8. **Pleospora Maireana** Lamb. et Fautr. Rev. Mycol. 1897, p. 142. 2286

— Peritheciis nudis, sparsis v. gregariis, basi hyphis nonnullis cinctis, majusculis, papillatis, depressis denique umbilicatis; ascis clavatis, interdum leniter curvulis, 90 × 14-20, paraphysibus filiformibus obvallatis; sporidiis oblongis v. ovalibus, forma variantibus, octonis, rarius quaternis, e luteo brunneis, 5-7 transverse septatis, in longitudine uniseptatis, muriformibus, 22-26 × 10-12.

Hab. in caulibus siccis Laserpitii gallici in Gallia.

9. **Pleospora utahensis** Ell. et Ev. Proc. Californ. Acad. V, 1895, 2287
p. 727. — Peritheciis sparsis, erumpenti-superficialibus, depresso-globosis, basi hyphis brevibus brunneis cinctis, demum apice collapsis, 150-250 μ. diam., ostiolo papilliformi; ascis oblongis, apice rotundatis, 75-90 × 20-23, paraphysatis, octosporis, breviter pedicellatis; sporidiis confertis, biseriatis, oblongo-ellipticis, primo luteis, uniseptatis constrictisque, dein 3-septatis et denique circiter 7-septatis, muriformibus, brunneis, 20-23 × 14-16.

Hab. in caulibus emortuis Eupatorii occidentalis, Utah, Amer. bor. — Differt a *P. richtophensi* peritheciis distinctius erumpentibus, sporidiis latioribus, a *P. alpestri* ascis octosporis, sporidiis angustioribus.

10. **Pleospora Artemisiæ** Pat. Enum. Champ. Tunisie 1892, p. 14. 2288
— Peritheciis in rimis epidermidis seriatim dispositis, superficialibus, glabris, nigris, nitentibus, 400-500 μ. diam., globulosis v. depressis; ostiolo obsoleto; ascis clavatis, 120 × 15-20, octosporis; paraphysibus linearibus, simplicibus v. subramosis; sporidiis monostichis, luteo-olivaceis, 26-31 × 8-10, transverse 6-septatis, 2-3 loculis mediis in longitudine uniseptatis, fusiformibus, utrinque acutis, ad septa constrictis, rectis v. curvulis.

Hab. in caulibus emortuis Artemisiæ Herbæ-albæ in Tunisia. — *P. lanceolatæ* affinis.

11. **Pleospora Abromeitiana** P. Henn. in Allescher et P. Hennings, 2289
Pilze aus dem Umanakdistrikt 1897, p. 9. — Peritheciis caulicolis, sparsis, primo tectis, dein erumpentibus, conico-subglobosis, atris; ascis clavatis, curvatis, breviter stipitatis, 8-sporis, 90-120 × 25-33; sporidiis distichis vel subdistichis, oblongis vel subclavatis, 6-septatis, muriformibus, medio subconstrictis, utrinque rotundatis, 24-30 × 13-16, melleis dein atrobrunneis.

Hab. in caulibus emortuis Artemisiæ borealis pr. Sermitdletfjord Groenlandiæ (v. Drygalski).

12. **Pleospora Aloysiæ** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4 2290
ser. VIII, 1896, (Microm. III, p. 4) et Rev. Mycol. 1896, p. 158,

tab. CLXVI, fig. 6. — Perithéciis sparsis, subglobosis, epidermide tectis, prominulis, $^1/_2$ mm. diam., contextu fuligineo; ascis cylindraceo-clavatis, vix stipitatis, 60-150 × 20-25, aparaphysatis; sporidiis distichis v. suboblique monostichis, initio oblongo-lanceolatis, 22-24 × 6-7, hyalinis v. chlorinis, intus granulosis, continuis v. 1-septatis, dein oblongo-ovoideis, 32-36 × 14-18, utrinque obtusiusculis, 7-septato-muriformibus, ad septa leniter constrictis, loculis pluriguttulatis, lutescentibus.

Hab. in ramis emortuis Aloysiæ citriodoræ in horto botanico Senensi Italiæ. — Affinis *Pleosporæ herbarum*, sed differt præcipue defectu paraphysum.

13. **Pleospora coloradepsis** Ell. et Ev. Proc. Acad. Philad. 1895, p. 422. — Perithéciis sparsis, subcuticularibus, subglobosis, 200-230 μ. diam., contextu obscuro basi mycelii hyphis cincto; ostiolo papilliformi v. conico-papilliformi, epidermidem perforante; ascis oblongis, breve stipitatis, 100-130 × 25-30; paraphysibus plus minus distincte ramosis; sporidiis distichis, oblongis v. ovato-ellipticis, medio vix sed interdum distincte constrictis, luteo-brunneis, 6-8-septatis, dein clathrato-muriformibus, utrinque plerumque rotundatis obtusisque, 27-35 × 12-15, leniter compressis. 2291

Hab. in caulibus emortuis Polemonii conferti, Colorado, Amer. bor. (Baker).

14. **Pleospora Xylostei** Fautr. Rev. Mycol. 1896, p. 70. — Perithéciis sparsis minutis epidermide tectis, dein erumpentibus, ostiolo minuto coronatis basique fibrillosis; ascis late clavatis breveque sed distincte stipitatis, 100 × 12-16, paraphysibus articulatis obvallatis; sporidiis supra in ascis oblique distichis, basi ascorum monostichis, apice obtusis basique subacutatis, transverse 7-9-septatis, medio leniter constrictis, loculis plurimis in longitudine 1-septatis, 23-25 × 8-10. 2292

Hab. in ramulis Loniceræ Xylostei in Gallia.

15. **Pleospora Bardanæ** Niessl – Sacc. Syll. II, p. 242. — var. **Globulariæ** Pat. Énum. Champ. Tunisie, 1892, p. 14. — Perithéciis subsuperficialibus; ostiolo conico, prominente; sporidiis transverse 3-septatis, 23 × 10. 2293

Hab. in caulibus emortuis Globulariæ Alypi, Tunisia

16. **Pleospora Limoniastri** Pat. Énum. Champ. Tunisie, 1892, p. 15. — Perithéciis sparsis, superficialibus, nigris, nitentibus, 300-400 μ. diam., subglobosis; ostiolo obsoleto; ascis octosporis, p. sp. 100 μ. long.; sporidiis submonostichis, fuliginosis, transverse 3-raro 4-5- 2294

septatis, in longitudine parum septatis, medio constrictis, ovalibus, utrinque rotundatis, 15-20 × 7-9.

Hab. in gallis Limoniastri monopetali, Monastir Tunisiæ.

17. **Pleospora Crandallii** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 131. 2295
— Peritheciis sparsis semierumpentibus, obtuse conicis, 200 μ. diam., ostiolo papilliformi coronatis; ascis oblongis subsessilibus, stipite brevissimo noduloso, 75-80 × 20-22, indistincte paraphysatis; sporidiis confertis distichis oblongis v. leniter obovato-oblongis, 5-septatis, vix constrictis, 2 vel pluribus loculis septo longitudinali percursis, 20-22 × 10-12, utrinque obtuse rotundatis.

Hab. in caulibus emortuis Androsaces Chamæjasmes, Colorado Amer. bor. (Crandall).

18. **Pleospora aurea** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4 ser. 2296
VIII. 1896, (Microm. III. p. 4) et Rev. Mycol. 1896, pag. 158. tab. CLXVI, fig. 5. — Peritheciis sparsis, erumpentibus, globulosis, nigris, pertusis, $^2/_3$-1 mm. diam.; contextu fuligineo; ascis cylindraceis, basi breviter attenuatis, 70-80 × 16-18, aparaphysatis; sporidiis ellipticis, plerumque inordinatis, initio continuis, hyalinis, granuloso-farctis, dein 3-septatis, ad septa non constrictis, loculo tertio longitudinaliter diviso, aureis, 16-20 × 7-8.

Hab. in ramulis Osyridis albæ in silvis pr. S. Giovanni d'Asso (Siena) Italiæ.

19. **Pleospora Casaliana** Sacc. et Syd. *Pleospora Thymelææ* Cas. Mal- 2297
pighia 1897, p. 87, nec Pat. — Peritheciis late gregariis, coriaceis, basi fibrosis, 250-300 μ. diam.; ascis cylindraceis, paraphysatis; sporidiis distichis, 5-septatis, ad septa constrictis, flavis, 30 × 15.

Hab. in ramulis emortuis Thymelææ hirsutæ in Italia. — Sporidiis distichis, brunneis latioribus, ad omnia septa constrictis a *P. Thymelææ* Pat. præcipue beneque distincta.

20. **Pleospora Thymelææ** Pat. Énum. Champ. Tunisie, 1892, p. 14. 2298
— Peritheciis 2-3-consociatis, demum erumpentibus, rotundatis v. depressis, $^1/_2$ mm. diam., nigris, opacis, basi fibrillis brunneis circumdatis; ostiolo elongato, erecto, cylindraceo, apice obtuso; ascis elongatis, cylindraceis, 150 × 15, octosporis; paraphysibus numerosis, hyalinis, linearibus, septatis; sporidiis monostichis, melleis, 22-28 × 8-9, demum brunneis, primo uniseptatis, dein 3 demumque 5-7-septatis, medio constrictis, utrinque attenuatis obtusisque, in longitudine parum septatis, loculis extimis semper simplicibus.

Hab. in cortice Thymelææ hirsutæ, Tunisia.

21. **Pleospora luglandis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 279. 2299

— Peritheciis gregariis minutis, 400-500 μ. diam., intus albidis, cortice immersis ac epidermidem in pustulas numerosas minutas ostiolo minuto punctiformi perforatas elevantibus; ascis cylindraceis, 75-85 × 10, breve stipitatis, octosporis, paraphysatis; sporidiis monostichis, oblongo-ellipticis, 3-rarius 5-septatis, loculis duobus mediis septo longitudinali divisis, vix constrictis, luteo-brunneis, 15-22 × 8-10.

Hab. in ramis emortuis Juglandis nigræ, Kansas Amer. bor.

22. **Pleospora imperspicua** Pat. Cat. rais. pl. cell. Tunisie, 1897, p. 108. — Peritheciis sparsis, globosis, atris, poro impressis, glabris, minutis, 120-150 μ. latis, semiimmersis; ascis ventricosis, utrinque attenuatis, 60 × 13-15, octosporis, aparaphysatis; sporidiis pallide brunneis, ovoideis, transverse 3-septatis, leniter constrictis, 1 vel 2 loculis mediis uno septulo longitudinali divisis, 10-13 × 5. 2300

Hab. in ligno denudato Pini halepensis in Tunisia.

23. **Pleospora sanseverlana** Delacr. Bull. Soc. Mycol. de France, XIII, p. 126, cum icone. — Peritheciis subepidermicis, nigris, erumpentibus, 160-180 μ. latis, poro circulari, 50 μ. diam.; mycelio e castaneo fuliginoso, septato, ramoso, sinuoso, intertexto, 5 μ. lato; ascis teretibus, summo rotundato, deorsum breve attenuatis, octosporis, pariete crassiore, 75 × 16-18; sporidiis castaneo-brunneis, 3-4 transverse septatis, ad septum constrictis, septis transversalibus parcis, ovatis, 16-20 × 6-7, in asco oblique monostichis, sæpius in parte inferiori confuse distichis; paraphysibus diffluentibus. 2301

Hab. ad folia emortua Sanseveriæ, socia *Meliola amphitricha* Congo (Dybowski).

24. **Pleospora Berlesii** Oud. Révis. des Champ. II, p. 345. — Peritheciis foliicolis $^1/_2$ mm. diam., immersis, coriaceis, firmis, collo vix prominulo nigro donatis; ascis late clavatis, 180-190 × 30, vix stipitatis crasseque tunicatis, octosporis, paraphysibus filiformibus obvallatis; sporidiis distichis oblongis v. fusoideis, 50-60 × 16-18, e melleo subfuligineis, transverse 3-septatis longitudinaliterque 1-septatis, exacte rectis. 2302

Hab. in foliis Acori Calami in Hollandia (Desprée).

25. **Pleospora juncicola** Ell. et Ev. Proc. Acad. Philad. 1895, p. 422. — Peritheciis sparsis v. gregariis, depresso-globosis, 110-130 μ. diam., cuticula tectis, dein subemergentibus, ostiolo subpapilliformi, mox perforato; ascis oblongis, breve stipitatis, sursum late 2303

rotundatis, obscure paraphysatis. 75-110 × 25-30; sporidiis distichis, ellipticis, compressis, medio plerumque modice constrictis, 25-35 × 15-18, e latere 10-12 μ. crassis, aureo-luteis, circiter 7-septatis, dense clathrato-muriformibus.

Hab. in calamis emortuis Junci baltici, Colorado, Amer. bor. (Crandall).

26. **Pleospora maritima** Rehm, Hedw. 1896, p. (149). — Peritheciis 2304
gregariis, immersis, glabris, papillula conoidea prominentibus, globosis, 400 μ. latis; ascis oblongo-clavatis, sessilibus, crassis, 180 × 45, octosporis; sporidiis oblongis, obtusis, medio vix constrictis, transverse 4-8, perpendiculariter 2-3-septatis, flavidulis, 45-60 × 21-25, distichis; paraphysibus conglutinatis.

Hab. ad folia pristina Triglochinis maritimi pr. Kaafjord, Alten maris artici Norvegici (Lagerheim). « Vix diversa a sequente ».

27. **Pleospora Dietziana** Hazsl. Math. es term. Közlem. XXV, 2, Bu- 2305
dapest 1892, p. 154, tab. X, fig. 40. — Peritheciis globoso-conicis, uniseriatis aterrimis; ascis a basi secedentibus, oblongo-cylindricis, circ. 200 μ. longis, 1-6-sporis, cavitate parva, dein sporidiis crescentibus ampliata; sporidiis luteo-fuscis, 50 × 20, 5-7 septis transversalibus et tribus longitudinalibus loculos ultimos attingentibus; membrana ascorum tempore sporidiorum maturitatis adhuc 2 μ. crassa.

Hab. in scapis Triglochinis maritimi in Hungaria.

28. **Pleospora thurgoviana** Wegelin, Mitth. d. Thurgau. Naturf. Ges. 2306
XII, 1896, p. 9 extr. tab. III, fig. 10-11. — Peritheciis gregariis, initio matricis parenchymate omnino innatis, ostiolo subrotundo prominulo, demum pro parte superficialibus, ellipsoideis, minute papillatis, 300-500 μ. diam.; ascis clavatis, sessilibus, crasse tunicatis, 140-180 × 24-28, paraphysibus numerosis filiformibus circiter 3 μ. crassis obvallatis; sporidiis octonis, sursum in asco oblique distichis, basi monostichis, clavato-ellipsoideis, utrinque rotundatis, unilateralibus, medio septatis, loculis 4 superioribus crassioribus, 7-septatis, loculis omnibus (extimo infero excepto) septo verticali percursis, aureo-brunneis, guttulis magnis v. minutis repletis, 35-40 × 10-14, rarissime 26 × 10.

Hab. in culmis Typhæ latifoliæ, Helvetia.

29 **Pleospora infectoria** Fckl. - Sacc. Syll. II, p. 265. — var. **Sacchari** 2307
Speg. Rev. Agr. y Veter. La Plata, 1896, p. 233. — Maculis nullis v. minutis indeterminatis vix pallescentibus; peritheciis sparsis

vel hinc inde laxe 2-5-aggregatis, amphigenis, parenchymate immersis, globosis, 150-160 μ. diam., ostiolo vix papillato epidermidem perforante ejusdemque superficiem attingente sed non exserto coronatis, membranaceo-coriacellis, contextu subpellucido parenchymatico fuligineo atro donatis; ascis cylindraceis, antice rotundatis, postice breviter cuneato-pedicellatis, octosporis, aparaphysatis; sporidiis oblique mono- vel distichis, ellipsoideis, rectis v. subcymbæformibus, utrinque acutiuscule rotundatis, triseptatis, ad septum medium valde constrictis, ad cetera lenissime, loculis duobus centralibus sæpe septo altero tenuiore transversali divisis, loculo centrali infero, rarius supero etiam, septo longitudinali partito, olivaceis, loculis extimis pallidioribus, muco destitutis.

Hab. ad folia languida, rarius in vaginis vetustioribus Sacchari officinarum, prov. Tucuman Argentina.

30. **Pleospora opaca** Wegelin, Mitth. d. Thurgau. Naturf. Ges. XII, 1896. p. 9 extr. tab. III, fig. 12-13. — Peritheciis sparsis, immersis; ostiolo papillato conico, fulvo, opaco, prominulo donatis, globosis v. ellipsoideis, 400 μ. diam.; ascis cylindraceis, interdum subclavatis, crasse tunicatis, vertice poro distincto præditis, sessilibus, 150-230 × 30-34, paraphysibus numerosis filiformibus septatis circiter 4 μ. crassis obvallatis; sporidiis mono- v. distichis, ovoideis v. ellipsoideis, antice in apiculum contractis, postice rotundatis, medio modice constrictis, segmento supero longiore et crassiore, nigris, omnino impellucidis, transverse 7-septatis, in longitudine 1 v. 2 septis percursis, quoque loculo 1-guttatis, 39-47 × 15-19 1/2. 2308

Hab. in culmis siccis Phalaridis, Thurgau Helvetiæ.

31. **Pleospora Oligostachyæ** Ell. et Ev. Americ. Natur. 1897, p. 342. — Peritheciis sparsis, hemisphærico-prominulis, minutis, 200 μ., nigris, ostiolo minuto papilliformi; ascis oblongo-cylindraceis, breve stipitatis, 65-75 × 12-14; paraphysibus numerosissimis; sporidiis distichis, oblongo-ellipticis, subinæquilateralibus, 3-septatis, vix constrictis, una cellula sæpe longitudinaliter septata, 14-17 × 6-7. 2309

Hab. in foliis Boutelouæ oligostachyæ in Kansas Amer. bor. (Bartholomew).

32. **Pleospora findens** Ell. et Ev. Americ. Natur. 1897, p. 342. — Peritheciis immersis, globosis, 150 μ. diam., erumpentibus, ostiolo conico-tuberculiformi; ascis cylindraceis, breve stipitatis, 130-150 × 12; paraphysibus nullis; sporidiis monostichis, oblongis, 5-septatis, plerumque 1 v. 2 cellulis longitudinaliter septatis, straminеis, 20-34 × 3-5 (?). 2310

Hab. in culmis emortuis Andropogonis virginici pr. Newfield Amer. bor. — Ad *Leptosphæriam* accedit sporidiis interdum haud longitudinaliter septatis.

PYRENOPHORA Fr. — Syll. II, p. 277, IX, p. 895, XI, p. 344.

1. **Pyrepophora delicatula** Vestergr. Jahreskatalog der Wiener Kryptog. Tauschanstalt, 1897, p. 3. — Peritheciis minutissimis, punctiformibus, sparsis, in lana foliorum insertis eaque tectis, 100-150 μ. in diam., membranaceis, nigris, poro apice pertusis, præcipue circa ostiolum setis rigidis, fuscis, septatis, usque ad 60 μ. longis, c. 3 μ. latis præditis, textura grosse parenchymatica, fuliginea; ascis oblongis, apice rotundatis, deorsum in stipitem brevem abruptis, 60-70 × 13-14; paraphysibus filiformibus, ascos æquantibus vel parum superantibus; sporidiis octonis, distichis, oblongo-ovoideis, utrinque rotundatis, inæquilateralibus, 3-septatis, ad septa constrictulis, loculis intermediis 1-2 septo longitudinali divisis, lutescentibus, 16-19 × 6-7. 2311

Hab. in utraque pagina foliorum mortuorum Cerastii tomentosi in horto botanico Upsaliensi Sueciæ.

2. **Pyrenophora eximia** Rehm, Mitth. d. Thurgau. Naturf. Ges. XII, 1896, p. 13 extr. tab. III, fig. 14-15. — Peritheciis sparsis, initio immersis, vertice setulis brevibus instructis, ostiolo minuto, nigro, prominulo præditis, demum superficialibus, opaco-nigris, tenue tunicatis, 200-250 μ. diam.; ascis clavatis, apice rotundatis, sessilibus, 8-sporis, crassiuscule tunicatis, 75-100 × 16-21, paraphysibus numerosis filiformibus 2-3 μ. crassis guttulatis obvallatis; sporidiis initio clavatis, vertice rotundatis, postice valde attenuatis, demum fusoideis, plerumque unilateralibus, transverse 7-9-septatis, in longitudine septo indistincto divisis, primo medio, dein ad omnia septa constrictis, aureo-brunneis, ætate olivaceis, 28-32 × 9-11. 2312

Hab. in caulibus siccis Artemisiæ campestris et in vaginis Astragali aristati, Helvetia.

3. **Pyrenophora Lycii** (Hazsl.) Sacc. et Syd., *Pleospora Lycii* Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 162, t. XI, fig. 44. — Peritheciis globoso-conoideis, cono epidermidem perforantibus, aggregatis, circa ostiolum setis coronatis; ascis cylindricis, breviter stipitatis, paraphysibus filiformibus obvallatis; sporidiis monostichis, oblongo-fusiformibus, fuscis, transverse 5-septatis, in longitudine uno septo brevi divisis, primo guttatis, 26-30 × 8, 2313

Hab. in ramis tenuissimis Lycii barbari in Hungaria.

4. **Pyrenophora Echinopsis** (Hazsl.) Sacc. et Syd., *Pleospora Echinopsis* Hazsl. Math. es term. Közlem. 1873, p. 47, tab. III, fig. *a-g.* — Peritheciis sparsis, sessilibus, hemisphæricis, tandem collapsis patelliformibus, carbonaceis, hirtis in mycelio atro-fusco torulaceo subepidermali; perithecii pilis rigidis, parum flexuosis, unicellularibus, apice diaphanis; ostiolo vix conspicuo, nucleo ascis et paraphysibus farcto; ascis oblongo-linearibus, brevissime et abrupte stipitatis, 8-sporis, 100-120 × 12-15; sporidiis ovatis rarius ovalibus aut oblongis, utrinque obtusissimis, tetrablastis, flavo-fuscis, mono- vel distichis, 16-20 × 8-10. 2314

Hab. in caulibus Verbasci phlomoidis in Hungaria.

MONTAGNULA Berl. Icon. fung. II, p. 68 (Etym. a cl. C. Montagne). — Perithecia plerumque in pustulis foliorum tumidis solitaria vel stromate plus minusve evoluto immersa, globosa vel mutua pressione angulata, ostiolo minuto vix prominulo. Asci clavati, longe stipitati, paraphysati, octospori. Sporidia fusoidea, medio constricta, transverse pluriseptata, muriformia, muco obvoluta, colorata. — Est *Pleospora* stromatica ascisque longe stipitatis.

1. **Montagnula infernalis** (Niessl) Berl. l. c. p. 69, tab. XCIX, *Leptosphæria infernalis* Niessl, Sacc. Syll. IX, p. 786, *Pleospora Pustula* Berl. et F. Sacc. Fg. Lusit p. 5 in Rev Myc. 1889, tab. LXXXIII, fig. 6.
2. **Montagnula gigantea** (Mont.) Berl. l. c. p. 69, tab. C.; *Sphæria gigantea* Mont.; *Pleospora gigantea* Sacc. Syll. II. p. 272.

TEICHOSPORA Fuck. — Syll. II, p. 290, IX, p. 899, XI, p. 345. 2315

1. **Teichospora nitida** Ell. et Ev. Proc. Acad. Philad. 1895, p. 419.

Peritheciis dense sparsis, ovato-globosis, 350-400 μ. diam. primo epidermide elevata et ostiolis nigris papilliformibus perforata tectis, dein superficialibus; ascis clavato-cylindraceis, paraphysatis, octosporis, 90-110 × 11-13; sporidiis monostichis v. sursum in asco subdistichis, oblongo-ellipticis, obtuse punctatis, 3-5-septatis, cellulis pluribus v. omnibus in longitudine uniseptatis, 15-20 × 8-10, pallidis, luteolo-brunneis, ad septa non v. vix constrictis.

Hab. in truncis emortuis Rubi deliciosi et villosi, Colorado (Crandall), Virginia (Nuttall) Amer. bor.

2. **Teichospora infusoans** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 459. — Peritheciis gregariis in pustulis elongatis, ligni super- 2316

ficiem nigrificantibus, erumpenti-superficialibus, subhemisphæricis collapsis, cupuliformibus, 110-200 μ. diam., ostiolo distincto papilliformi ornatis; ascis clavato-cylindraceis, breve stipitatis, paraphysatis; sporidiis distichis, angustis, oblongo-ellipticis, lenissime curvulis, deorsum attenuatis, 3-5-(raro 6-7)septatis, vix v. leniter constrictis, 1 vel pluribus cellulis septo longitudinali peroursis, pallide flavo-brunneis, 18-22 × 6-8.

Hab. in ligno vetusto gossypino, Kansas Amer. bor. (Bartholomew). — *T. pygmææ* affinis.

3 **Teichospora Opuntiæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 459. 2317
— Peritheciis superficialibus, sparsis v. gregariis, ovatis, minutis, $^1/_4$ mm. diam., minute asperulis, ostiolo papilliformi v. conico-papilliformi levi nigro excepto; ascis cylindraceis, breve stipitatis, octosporis, 75-80 × 9-10; sporidiis monostichis, obovato-ellipticis, 3-septatis, medio constrictis, 1 vel 2 loculis septo longitudinali percursis, brunneis, 12-14 × $5^1/_2$-6.

Hab. in caulibus Opuntiæ arborescentis, Colorado Amer. bor.

4. **Teichospora cruentula** Sacc. in Herb., Berl. Icon. fung. II, p. 49, 2318
t. LXIX, fig. 1. — Peritheciis gregariis macula vinoso-fusca, effusa insidentibus, basi ligno insculptis, globoso-conoideis v. parum depressis, tomento sanguineo-fuscidulo tectis, $^1/_3$ mm. diam.; ascis 90-100 × 10-12; sporidiis ovoideo-oblongis, transverse 3-5-septatis, loculis 1-3 mediis septo longitudinali divisis, 17-20 × 7-9.

Hab. in ligno exsiccato subputri Piri Mali pr. Upsala Sueciæ (Romell).

5. **Teichospora Diospyri** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4 2319
ser. 1896 (Microm. III, p. 4) et Rev. Mycol. 1896, pag. 159, tab. CLXVII, fig. 1. — Peritheciis subsolitariis, superficialibus, globosis, nigris, rugulosis, circ. 1 mm diam., contextu fuligineo; ascis cylindraceo-clavatis, octosporis, 150-200 × 24-30; sporidiis oblique monostichis v. subdistichis, ovato-oblongis, subfusoideis, initio cribrose guttulatis, dein 5-7-septatis, loculis 2-3-septulato-muriformibus, locellis plus minusve nucloatis, 32-36 × 14-16, fuligineis.

Hab. in cortice Diospyri virginianæ in horto monasterii Montis Oliveti, Siena Italiæ. — *T. obducenti* Fckl. proxima.

6. **Teichospora strigosa** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 459. 2320
— Peritheciis superficialibus, gregariis, globosis, $^1/_3$ mm. diam., supra collabentibus, pilis brunneis circa basim præditis; ascis cy-

lindraceis, breve stipitatis, paraphysatis, 8-sporis, 100-110 × 12-15; sporidiis subdistichis, oblongo-vel ovato-ellipticis, lutescentibus, 5-7-septatis, loculis plurimis septo longitudinali percursis, medio sæpe constrictis, 20-27 × 11-13.

Hab. in ramulis emortuis Symphoricarpi, Colorado Amer. bor. — *T. crossatæ* affinis.

7. **Teichospora Nepetæ** Ell. et Ev. Bull Torr. Bot. Cl. 1897, p. 127. 2321
— Peritheciis sparsis superficialibus depressis, 220-250 μ. diam., collapsis, ostiolo papilliformi distincto ornatis; ascis clavato-cylindraceis subsessilibus, deorsum gradatim attenuatis, 70-80 × 12-15, paraphysibus firmis linearibus, 2-2 ½ μ. crassis obvallatis; sporidiis distichis clavato-oblongis leniterque curvulis, 5-7-septatis, ad septum medium interdum profunde constrictis, 20-22 × 6-7, rarius 25 × 10, luteo-brunneis, 1 vel 2 loculis septo longitudinali divisis.

Hab. in caulibus emortuis Nepetæ Catariæ, Ontario, Canada (Dearness). — *T. Vitalbæ* valde affinis, sed peritheciis ascisque minoribus præcipue diversa species.

8. **Teichospora minima** Ell. et Ev. Proc. Acad. Philad. 1895, p. 419. 2322
— Peritheciis sparsis, minutis, 100-110 μ., collabentibus, sublevibus, ostiolo papilliformi ornatis; ascis clavato-oblongis, breve stipitatis, 50 × 12-14, p. sp. 40-46 μ, paraphysatis, octosporis; sporidiis conglobatis, distichis, ellipticis, circiter 5-septatis, ad septa non constrictis, 12-15 × 7-8, olivaceis.

Hab. in ligno quercino, Kansas, Amer. bor. (Bartholomew). — *T. pygmææ* affinis, sed differt peritheciis minoribus collabentibus et ascis brevioribus.

9. **Teichospora lophidicides** Fautr. et Lamb. Rev. Mycol. 1897, p. 55. 2323
— Peritheciis superficialibus sparsis, nigris, crassis, carbonaceis, fragilibus, sphæricis, ostiolis conicis plus minus longis demum deciduis; sporidiis subdistichis, ovalibus, oblongis, primo hyalinis, dein obscuris, et transverse et in longitudine multiseptatis, muriformibus, 45 × 18.

Hab. in cortice Populi fastigiatæ in Gallia. — *T. suboccultæ* affinis.

10. **Teichospora populina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 278. 2324
Peritheciis sparsis, semierumpentibus, subglobosis, circiter ½ mm. diam., partim matricis fibris tectis, ostiolo papilliformi; ascis cylindraceis, subsessilibus, paraphysatis, 110-120 × 8-10, octosporis; sporidiis monostichis, ovato-ellipticis, 3-5-septatis, ad septa constrictis, brunneis, 15-22 × 7-8, cellulis internis septo longitudinali divisis.

Hab. in ramis decorticatis Populi moniliferæ, Kansas Amer. bor. (Bartholomew).

11. **Teichospora obducens** Fckl. - Sacc. Syll. II, p. 295. — F. Laricis Lamb. Rev. Mycol. 1897, p. 55. — Peritheciis superficialibus, applanatis, astomis; ascis cylindraceis, curvato-stipitatis; sporidiis monostichis, ex hyalino luteis, 3-5 transverse septatis, in longitudine 1 v. 2-septatis, 18-21 × 9-10. 2325

Hab. ad basim conorum Laricis in Gallia.

12. **Teichospora tenacella** (Fr.) Ellis, Proc Acad. Philad. 1895, p. 25, *Sphæria tenacella* Fr. S. M. II, pag. 492. Sacc. Syll. II, p. 421. — Peritheciis subseriatis, per rimas epidermidis longitudinales semierumpentibus, subglobosis, levibus, circiter $^1/_3$ mm. diam., demum apice collabentibus; ascis non visis; sporidii oblongis vel oblongo-ellipticis, brunneis, cellulis extimis pallidioribus, 3-5 (plerumque 3-) septatis, in longitudine plus minusve continue uniseptatis, 20-26 × 10-11. (Sporidia oblonga sunt ad septa constricta, sporidia autem oblongo-elliptica non constricta). 2326

Hab. in ramis tenellis, Bethlehem, Amer. bor.

13. **Teichospora jungermannicola** Massal. Mem. dell'Acc. delle Sc. Med. e Nat. di Ferrara 5, Mac. 1895, fig. 1-3 *(Strickeria)*. — Peritheciis minutis, sparsis, superficialibus, globosis, nigris, magnitudine variis, vulgo 120-210 μ. diam., inferne hyphas fuscas, septatas exserentibus; ostiolo punctiformi, sæpe indistincto; contextu perithecii membranaceo obscure celluloso; ascis oblongis 45-65 × 16-20, paraphysibus evanescentibus; sporidiis octonis ellipsoideo-fusiformibus, olivaceo-fuligineis, 18-28 × 8-10, utrinque acutiusculis, 4-6-septatis, subconstrictis, loculis extimis indivisis, ceteris demum longitr. v. oblique 1-septatis. 2327

Hab in foliis vivis Jungermanniæ Flœrkei var. collaris pr. Lugano, Valle Peccia (L. Mari).

PLEOSPHÆRIA Speg. — Syll. II, p. 304, IX, p. 910, XI, p. 347.

1. **Pleosphæria quercina** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 109; Explor. Tun. Illustr. bot. tab. III, fig. 9. — Peritheciis in ligno denudato superficialibus, sparsis v. gregariis, globosis, 160-250 μ. diam., ostiolo papillato, glabro ornatis, atris, coriaceo-membranaceis, contextu celluloso, atro-fuliginoso, setulis cylindraceis, acutis 40-50 × 3-4, atro-fuscis, opacis, erectis, non septatis, laxe vestitis, hyphis ropentibus, mollibus, fuligineis, septatis, 4 μ. latis, instructis; ascis clavatis, breviter stipitatis, 50 × 20 (parte sporif.), indi- 2328

stincte paraphysatis; sporidiis subdistichis, fusoideo-ovatis, 4-5 transverse septatis constrictisque, loculis centralibus septo longitudinali donatis, griseo-fumosis, pellucidis, 16-18 × 7-9.

Hab. in ligno Quercus Mirbeckii in Tunisia.

CUCURBITARIA Gray — Syll. II, p. 307, IX, p. 915, XI, p. 348.

1. **Cucurbitaria Ellisii** Sacc. et Syd., *Cucurbitaria Astragali* Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 127. — Peritheciis gregariis v. confertis, erumpenti-superficialibus, globoso-hemisphæricis, minute asperatis, 500-650 μ. diam., superne denique collapsis, ostiolo nigro, conico-papilliformi; ascis clavato-cylindraceis, stipitatis, paraphysatis, 85-100 × 9-10; sporidiis monostichis, oblongo-fusoideis, inferne subacutis, superne obtusis, 3-septatis, medio leniter constrictis, primo hyalinis, dein pallide flavis, vulgo 1-2 cellulis longitudinaliter septatis, 15-20 × 6-8; stylosporis oblongo-ellipticis, uniseptatis, vix constrictis, subhyalinis, 6-8 × 3-3 1/2. 2329

Hab. in caulibus emortuis Astragali spec. in Kansas Amer. bor. (Bartholomew).

2. **Cucurbitaria Retamæ** Pat. Enum. Champ. Tunisie 1892, p. 15, tab. II, fig. 8. — Peritheciis e corticis rimis erumpentibus, in cæspitulos nigros collectis, confertis, distinctis, globosis, nigris, sæpe depressis, ostiolatis, opacis, intus albis, basi fibrillis paucis brunneis cinctis; ascis clavatis, brevissime stipitatis, octosporis, 120-140 × 15; paraphysibus linearibus, hyalinis; sporidiis monostichis, e luteo brunneis, transverse 3-septatis, ad septa constrictis, ovalibus, obtusis, loculis 2 mediis in longitudine septatis. 2330

Hab. in caulibus Retamæ Retam, Tunisia.

3. **Cucurbitaria stenocarpa** Ell. et Ev. Proc. Acad. Philad. 1895, p. 420. — Peritheciis 2-6 consociatis, per rimas epidermidis longitudinales breves anguste ellipticas erumpentibus, subglobosis, 350-400 μ. diam., brunneolo-nigris, asperis, collabentibus, ostiolo minuto papilliformi; ascis cylindraceis, breve stipitatis, 100-110 × 8-10, paraphysatis, octosporis; sporidiis monostichis, oblongo-ellipticis, 3-5-septatis, medio plerumque constrictis, 1 vel pluribus cellulis in longitudine uniseptatis, ex hyalino demum pallide luteo-brunneis, 15-20 × 6-8. 2331

Hab. in ramis emortuis Rhois diversilobæ, California (Mc Clatchie).

4. **Cucurbitaria subcæspitosa** Otth, Bern. Mittheil. 1870, p. 103. — Peritheciis erumpentibus, solitariis v. sæpius paucis cæspitosis con- 2332

crescentibus, subglobosis v. e mutua pressione difformibus, nigris, impolitis, ostiolo papillato, subacutato; ascis cylindricis, basi breviter attenuatis, octosporis; sporidiis monostichis, obliquis, fuscofuligineis, subovatis, obtusissimis, ad septum medium constrictis, 5-7-septatis nonnullisque verticalibus, 22 × 8; paraphysibus coalescentibus.

Hab. in ramis Sorbi Ariæ in Helvetia.

5. **Cucurbitaria minima** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 460. — 2333
Peritheciis subcæspitosis, 3-6-consociatis v. subseriatis, minutis, circiter $^1/_3$ mm. diam., ovato-conicis, sæpe rugosis; ostiolo papilliformi; ascis cylindraceis, breve stipitatis, paraphysatis, octosporis, 75-85 × 10-12; sporidiis excedentibus, monostichis, oblongis, 5-7-septatis, vix v. leniter constrictis, rectis, 18-20 × 6-7.

Hab. in caulibus emortuis Artemisiæ tridentatæ, Colorado Amer. bor.

6. **Cucurbitaria quercina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 460. 2334
— Peritheciis gregariis v. subcæspitosis, ligno nudo insidentibus vel e corticis rimis erumpentibus, depresso-globosis, interdum ovato-globosis, 400-500 μ. diam., minute asperatis, circa ostiolum papilliforme subcollabentibus; ascis breve stipitatis, cylindraceis, paraphysatis, 8-sporis; sporidiis monostichis, ovato-ellipticis, 3-5-septatis, interdum medio constrictis, luteo-brunneis, 18-20 × 8-10.

Hab. in ramis emortuis Quercus undulatæ, Colorado Amer. bor.

7. **Cucurbitaria corylicola** Delacr. Bull. Soc. Mycol. de France XIII, 2335
1897, p. 125, tab. X, fig. I. — Peritheciis in cortice nidulantibus, congregatis, papilla prædilis; ascis cylindraceis, ad basim vix attenuatis, parte superiore rotundatis, 120 × 12 (parte sporifera); sporidiis fuscis, transverse 4-6-septatis, murale divisis, medio constrictis, ad septa non v. vix, in asco primum oblique monostichis, dein recte, circiter 20 × 9; paraphysibus primum densis, asco paullo longioribus, denique dilabentibus; mycelio brunneo, ramoso, septato, 4-6 μ. lato, ad basim peritheciorum effuso. Status spermogonicus *Cytosporam* sistens: stromatibus olivaceis, in 3-4 loculos longitudinales divisis, cum dissepimentis secundariis hyalinis; spermatiis hyalinis, rectis, 4 × 1, sterigmatibus fasciculatis, acicularibus, 10-12 × 1 suffultis. Status pycnidicus e genere *Diplodia:* peritheciis nigris, collo prominente, crasso, 250 × 200; sporulis ovalibus, brunneo-castaneis, continuis, interdum maturitate uniseptatis, biguttatis, ad septa non constrictis, 17-27 × 8-12.

Hab. in cortice Coryli Avellanæ pr. Rigny-sur-Arroux (Saône et Loire) Galliæ. — *C. Cingaro* Schulz. et Sacc. proxima.

8. **Cucurbitaria Ephedræ** F. Tassi, Atti R. Acc. dei Fisiocr. Siena, 4 ser 1896, (Microm. III, p. 4) et Rev. Mycol. 1896. p. 159, tab. CLXVII, fig. 2. — Peritheciis sparse cæspitosis, erumpentibus, sphæroideis, 300-500 μ. diam., coriaceis, atris, pertusis; ascis cylindraceis, apice rotundatis, basi attenuato-stipitatis, 100-120 × 14-16; sporidiis ellipsoideo-oblongis, 20-23 × 8-10, constanter 3-septatis, loculis septulo longitudinali divisis, ad medium constrictis, fuligineis; paraphysibus filiformibus, simplicibus ramosisve, gracilibus. 2336

Hab. in radicibus Ephedræ andinæ in horto botanico Senensi Italiæ. — Affinis *C. Karstenii* Sacc. et *C. protractæ* Fckl., sed differt dimensionibus ascorum et sporidiorum quæ postrema differunt etiam præcipue septulo longitudinali.

9. **Cucurbitaria Yuccæ** Cocconi, Mem. R. Acc. Bologna, 1896, p. 155, fig. 6-9. — Peritheciis globulosis sed valde depressis, 0,3-0,4 mm. latis, in maculis albidis, sinuosis gregatim dispositis, basi pseudostromate nigricante suffultis; ascis paraphysatis, tereti-clavatis, apice rotundatis, octosporis; sporidiis ovoideis, triseptatis non constrictis septisque pluribus longitrorsum divisis, 26-29 × 10-12, flavo-brunneis. 2337

Hab. in foliis Yuccæ, Messina Siciliæ, socia *Diplodiæ* specie (F. Morini).

THYRIDIUM Sacc. — Syll. II, p. 323, IX, p. 920, XI, p. 348.

1. **Thyridium pallidum** Ell. et Ev. Proc. Acad. Philad. 1895, p. 424. — Peritheciis sparsis, depresso-globosis, circiter $^1/_3$ mm. diam., cortice interiore innatis, sordide albidis, epidermide ostiolo conico-papilliformi succineo perforata haud elevata velatis; ascis cylindraceis, 110-130 × 12, breve stipitatis, paraphysatis; sporidiis monostichis, oblongo-ellipticis, 8-septatis, medio constrictis, cellulis plerumque in longitudine uniseptatis, luteo-brunneis, 20-22 × 8-10. 2338

Hab. in ramis emortuis Rhois glabræ, Kansas, Amer. bor. (Bartholomew).

2. **Thyridium asserculorum** (Otth) Sacc. Hedw. 1896, p. XXXI, *Xylosphœria asserculorum* Otth, Bern. Mittheil. 1870, p. 104. — Peritheciis gregariis immersis, globoso-subdepressis, sæpe in ligni fibrarum directionem nonnihil oblongatis, collo brevi ostioloque prominulo demum pero dilatato pervio: ascis magnis clavatis, passim cylindraceis breviter basi tenuatis, 8-sporis; sporidiis imbricatis 2339

v. inordinatis, magnis, flavido-brunneis, ventricoso-fusoideis, obtusiusculis, inæquilateris, transverse et longit. pluriseptatis, medio subconstrictis, denique in cellulas innumeras divisis, 44-48 × 16-19; paraphysibus filiformibus.

Hab. in ligno pineo (asserculis) pr. Bern, Helvetia.

FENESTELLA Tul. — Syll. II. p. 325, IX, p. 922, XI, p. 349.

1. **Fenestella Robiniæ** (Otth) Sacc. Hedw. 1896, p. XXXI, *Thyridium* Otth, Bern. Mittheil. 1870, p. 100. — Stromate corticali immerso, globoso-depresso, albido, contextu tenacello, basi ligno superne peridermio pustulato adnato; peritheciis orbiculatim digestis, sursum in collum productis, ostiolis in discum parvulum nigrum peridermii poro vix revelatum congestis, nucleo gelatinoso fusco; ascis cylindricis deorsum breviter attenuatis, octosporis; sporidiis monostichis obliquis, sæpe disjunctis, fusco-fuligineis, ellipsoideis, obtusissimis, 7-septatis muriformibusque, 22-28 × 11-13; paraphysibus crassiusculis granulosis. 2340

Hab. in ramis Robiniæ in Helvetia.

2. **Fenestella microspora** Delacr. Bull. Soc. Mycol. XIII, 1897, p. 124, tab. X, fig. *H*. — Stromate valseo immerso; peritheciis ostiolatis, vix papillatis, paulum compressis, circiter 300 × 180; ascis parte inferiori attenuatis, summo rotundatis, 85 × 9; sporidiis monostichis, olivaceo-brunneis, transverse triseptatis, septis longitudinalibus paucis, ad septa non constrictis, 10-11 × 6-7, paraphysibus gracilescentibus. 2341

Hab. in cortice Coryli Avellanæ pr. Rigny-sur-Arroux, Saône-et Loire Galliæ.

3. **Fenestella parvula** Berl. Icon. fung. II, p. 76, tab. CIX, fig. 1. — Stromate vix manifesto; peritheciis in acervulos valsiformibus, $1^1/_2$-2 mm, diam., peridermium pustulatim elevantibus et corticem disco plano atro erumpentibus, 3-6 collectis, globoso-conoideis, plus minusve angulatis, $^1/_4$-$^1/_3$ mm. diam., ostiolis brevibus, crassiusculis discum vix perforantibus; ascis 140-145 × 18-21: sporidiis elongato-ovoideis v. fusoideis, inæquilateralibus, medio constrictis, transverso 9-13-septatis, loculis fere omnibus septis 1-2, raro 3, longitudinalibus divisis, 24-30 × 9-10. 2342

Hab. in ramis Betulæ albæ pr. Brünn Moraviæ (Niessl).

Sect. 9. Hyalodictyæ.

PLEOSPÆRULINA Pass. — Syll. XI, p. 350. Cfr. Berl. Ic. II, p. 98.

1. **Pleosphærulina hyalospora** (E. et Ev.) Berl. Icon. fung. II, p. 99, t. CXXXIV, fig. 3; *Pleospora hyalospora* et *Pl. americana* Ell. et Ev. ex parte (non *Pl. hyalospora* Speg.). — Peritheciis in parte folii ochraceo-lutescente subgregariis, epidermide tectis, lenticulari-globulosis, dein emersis, ostiolo obtusiusculo, $^1/_5$ mm. diam., ascis 75-85 × 44-50, aparaphysatis; sporidiis oblongis vel subfusoideis, utrinque obtuso-rotundatis, transverse 6-septatis, medio parum constrictis, loculis 1-2 mediis septo longitudinali divisis, 38-44 × 12-14, muco obvolutis.

   Hab. in foliis Lathyri sativi in Amer. bor. (Tracy).

2. **Pleosphærulina californica** Berl. Icon. fung. II, p. 100, t. CXXXV, fig. 1. — Peritheciis sparsis, sublenticularibus, ostiolo minuto pertusis, epidermide tectis, $^1/_4$ mm. diam.; ascis 75-85 × 30-40, paraphysibus mox evanescentibus primo cinctis; sporidiis oblongo-fusoideis, curvulis, utrinque attenuatis, transverse 6-8-septatis, ad medium parum, ad cetera septa minus constrictis, loculis 1-4 e mediis septo longitudinali divisis, 35-38 × 10-12. 2344

   Hab. in ramis emortuis Dendromeci rigidi, California (Harkness).

CATHARINIA Sacc. — Syll. II, p. 275, IX, p. 392, XI, p. 350.

1. **Catharinia Rubi** Oud. Révis. des Champ. II, p. 365. — Peritheciis epidermide tectis, sparsis, tantum collo papilliformi prominulis, 140 μ. diam., coriaceis sed flexilibus; ascis obovato-oblongis sessilibus, 46 × 21, apice incrassatis aparaphysatis; sporidiis imperfecte tristichis obovato-oblongis v. obovato-lanceolatis, 23-28 × 7-9, transverse 5-septatis longitudinaliterque septis duobus alteris percursis, hyalinis. 2345

   Hab in sarmentis Rubi in Hollandia.

2. **Catharinia genisticola** Fautr. et Lamb. Rev. Mycol. 1897, p. 54. — Peritheciis mediocribus, gregariis, nigris, sphæricis, tectis, ostiolo conico-truncato erumpentibus; paraphysibus filiformibus, numerosis; ascis sessilibus, clavatis, 100-120 × 10-12; sporidiis sursum in ascis distichis, deorsum monostichis, fusiformibus, hyalinis, in 2346

cumulo subluteolis, muriformibus, transverse 5-septatis, ad septa constrictis, in longitudine uniseptatis, 25-28 × 8-9.

Hab. in ramulis siccis Genistæ tinctoriæ in Gallia.

3. **Catharinia gregaria** Mc Alp. Addit. to the Fungi on the Vine in Austral. 1898, p. 45, fig. 64-67. — Peritheciis gregariis depresse globulosis ovoideisque, innato-erumpentibus, nigris, minute papillatis, 130-150 × 112-130; ascis elongato-clavatis, breve stipitatis, fasciculatis, 8-sporis, 94-98 × 19; paraphysibus tenuibus, sursum flexuosis; sporidiis oblongis subfusoideis, 4-septatis, loculis binis ternisve longitr. divisis, ad septa plerumque constrictis, 24-30 × $7\,^1/_2$-9, hyalinis. 2347

Hab. in cortice secedente Vitis, pr. Melbourne Australiæ. — Diversa a *Cath. hyalospora*, æque viticola, sporidiis 4-septatis, peritheciis minoribus etc.

4. **Catharinia Valdobbiæ** Sacc. Malpighia XI, 1897, p. 292. — Peritheciis subgregariis, globoso-depressis v. ovato-depressis, peridermio innatis, dein partim erumpentibus, $^1/_2$ mm. diam., fuscis, ostiolo exiguo non prominulo; ascis cylindraceis, breve nodoloso-stipitatis, apice obtusulis, 120-130 × 10-11; paraphysibus filiformi-clavulatis; sporidiis octonis, oblongo-fusoideis, utrinque obtusulis, 30 × 6-7, rectis curvulisve, typice 7-septatis muriformibusque, ad septa lenissime constrictis, hyalinis v. dilutissime flavidis. 2348

Hab. in ramis siccis Loniceræ nigræ, Riva-Valdobbia, Italia bor. (Carestia).

WINTERIA Rehm — Syll. II, p. 225 ex parte; *Winterina* Sacc. ex parte, Syll. IX, p. 870. Cfr. supra pag. 589.

1. **Winteria aterrima** Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 72. tab. IV, fig. 10. — Peritheciis discretis, globosis mox patelliformibus; ascis cylindricis, 8-sporis; sporidiis uniseriatis, ovatis v. ovato-fusiformibus, 3-5 septis transversis et uno longitudinali divisis, 25-30 μ. longis. 2349

Hab. in superficie cavitatis trunci salicini in Hungaria.

BŒRLAGELLA Penz. et Sacc. Malpighia XI, 1897, p. 404. (Etym. a cl. botanico J. G. Boerlage). — Perithecia superficialia, globulosa, setosa, nigra, typice byssiseda. Asci elongati, octospori, paraphysati. Sporidia elongata, majuscula, pluriseptato-muriformia, hyalina. — Pulchellum genus, quasi *Neopeckia* v. *Acanthostigma* hyalodictyum.

1. **Bœrlagella velutina** Penz. et Sacc. l. c. — Subiculo late effuso, velutino, nigro, hyphis septatis, filiformibus, subsimplicibus; peritheciis superficialibus in subiculo sparsis et absconditis, globosis, tenuiter carbonaceis, 500-600 μ. diam., ostiolo obsoleto, setosis, setulis filiformibus, 210-250 × 3-6, rectiusculis, septatis, crebris; ascis crasse tereti-clavatis, apice rotundatis, breve stipitatis, 200-250 × 30-35, octosporis, filiformi-paraphysatis; sporidiis cylindraceo-fusoideis, leniter curvis, utrinque obtusulis, 25-30-septato-clathratis (septis v. nucleis valde approximatis), hyalinis, 90-120 × 12-14, ad septa non constrictis. 2350

Hab. in lignis putrescentibus, in petiolis Plectocomiæ, Java. — Perithecii contextus parenchymaticus, ochraceo-fuscus.

2. **Bœrlagella laxa** Penz. et Sacc. l. c. p. 405. — Subiculo nullo v. obsoleto; peritheciis laxe gregariis, superficialibus, globulosis, ostiolo obsoleto, nigris, 0,5 mm. diam., longe pilosis, setulis filiformibus, septatis, fuligineis, subtortuosis; ascis tereti-clavatis, paraphysatis, 8-sporis, 120 × 14-15 (immaturis); sporidiis distichis, teretiusculis, utrinque rotundatis, 60 × 6-8, curvulis, 25-30-septato-muriformibus, hyalinis. 2351

Hab. in culmis putridis in horto bot. Bogoriensi, Java.

Sect. 10. Scolecosporæ.

OPHIOGNOMONIA Sacc. — Syll. I, p. 419, subgen.

1. **Ophiognomonia Sacchari** Speg. Rev. Agr. y Veter. La Plata 1896, p. 231. — Maculis nullis v. arescenti-pallescentibus, indeterminatis; peritheciis amphigenis, globosis, minutis, 150 μ. diam., parenchymate immersis, sparsis v. laxe subseriatis, ostiolo papillato epidermidem perforante, quandoque brevissimo vix superficiem attingente, quandoque longiusculo exserto, 50-200 × 40-50, sæpe globulo albo-mucedineo (ex sporis exsilientibus efformato) coronato donatis, coriacellis atris, contextu minute parenchymatico, inferne subopaco, circa ostiolum subpellucido; ascis clavulato-fusoideis, 110-120 × 15, antice attenuatis apiceque subtruncato-rotundatis crassiusculeque tunicatis, postice breviter crasseque cuneato-pedicellatis, aparaphysatis, octosporis; sporidiis subfasciculatis e cylindraceo lenissime subclavulatis, antice obtusiusculis, postice acutiusculis, 70-80 × 5, arcuatulis, continuis, plus minusve grosse guttulatis, hyalinis, levibus. 2352

Hab. in foliis vaginisque languidis Sacchari officinarum prov. Tucuman, Argentina.

OPHIOBOLUS Riess — Syll. II, p. 337, IX, p. 923, XI, p. 351.

1. **Ophiobolus Hazslinszkyi** Sacc. et Syd. *Ophiobolus Hesperidis* Hazsl. Math. es term. Közlem. XXV, 2 Budapest 1892, p. 168, tab. XI, fig. 45, nec Sacc. — Peritheciis majusculis, globosis, parum deplanatis, gregatim evolutis, rostro cylindrico decoratis; ascis cylindricis, angustis, pseudoparaphysibus ejusdem longitudinis mixtis; sporidiis luteo-fuscis, utrinque acuminatis, non septatis. 2353

Hab. in caulibus Hesperidis tristis in Hungaria.

2. **Ophiobolus Ingæ** Allesch. Hedw. 1897, p. 235. — Peritheciis hypophyllis, gregariis v. sparsis, subglobosis, epidermide nigrificata tectis, erumpentibus, in maculis parvis, subfuscis; ascis clavato-cylindraceis, substipitatis, ca. 60-80 × 10-12, octosporis; sporidiis filiformibus, ascorum fere longitudine, guttulatis, ex hyalino flavescentibus. 2354

Hab. in foliis emortuis Ingæ spec. pr. Goyaz Brasiliæ (Glaziou). — Ad *Linosporam* vergit.

3. **Ophiobolus purpureus** Ell. et Ev. Proc. Acad. Philad. 1895, p. 424. — Peritheciis gregariis, in partibus purpureo tinctis caulium innatis, ovato-globosis, circiter 250 *μ*. diam., epidermide nigrificata in pustulas elevata et ostiolo prominente papilliformi pertusa tectis; ascis clavato-cylindraceis, sessilibus, paraphysatis, obtusis, 80-100 × 12-15; sporidiis confertis, elongato-fusoideis, modice curvulis, circiter 6-septatis, 50-65 × 5-6, medio una cellula incrassata, luteolo-brunneis. 2355

Hab. in caulibus emortuis Umbelliferarum, Colorado, Amer. bor. — *O. porphyrogono* et *consimili* affinis, differt ascis sporidiisque latioribus.

4. **Ophiobolus acuminatus** Duby — Sacc. Syll. II, p. 340. — Var. **minor** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4 ser. 1896, et Rev. Mycol. 1896, p. 159, tab. CLXVII, fig. 4. — Ascis cylindraceis vel raro clavulatis, basi stipitatis, 100-120 × 10, paraphysibus filiformibus obvallatis; sporidiis 50-80 × 2-3, pluriseptatis, loculis 1-2-guttulatis, flavis, loculo pænultimo incrassato. 2356

Hab. in caulibus exsiccatis Cirsii arvensis ad Montem Olivetum (Siena) Italiæ. — Differt a specie peritheciis, ascis et præcipue sporidiis minoribus.

5. **Ophiobolus Helianthi** Ell. et Ev. Proc. Acad. Philad. 1895, p. 423. 2357

— Peritheciis sparsis, erumpenti-superficialibus, ovato-globosis, circiter $^1/_4$ mm. diam.; ascis clavato-cylindraceis, p. sp. 40 × 7-8, paraphysatis, octosporis; sporidiis fasciculatis, elongato-fusoideis, in asco brunneolis, liberis subhyalinis, 3-septatis, non constrictis, subrectis, circiter 40 × $3^1/_2$-4.

Hab. in caulibus emortuis Helianthi Maximiliani, Kansas, Amer. bor. (Bartholomew).

6. **Ophiobolus leptosphærioides** Sacc. et Paol. Syll. IX, p. 935. — 2358
Var. **Leucanthemi** Mout. Compt. rend. Bull. Soc. Roy. Bot. Belg. XXXVI, 1897, 2 part. p. 14, tab. *A*, fig. 17. — Peritheciis globosis, nigris, $^1/_5$-$^1/_4$ mm., epidermide tectis, ostiolo brevi papillato; ascis clavatis, paraphysibus longioribus, apice late rotundatis, deorsum in stipitem attenuatis, 8-sporis, 90-105 × 15-18; sporidiis fasciculatis, luteolis, cylindrico-vermiformibus, deorsum angustioribus, 12-14-septatis, ad septa vix v. non constrictis, aliquando in tertia parte superiore uno loculo paulo protuberante, 75-85 × 4.

Hab. in caulibus emortuis Leucanthemi vulgaris pr Liège Belgii.

7. **Ophiobolus herbarum** (Otth) Sacc. Hedw. 1896, p. XXXI, *Rhaphidophora herbarum* Otth, Bern. Mittheil. 1868, p. 55. — Peritheciis globoso-depressis, basi applanatis adnatis, primum epidermide tectis, ostiolo erumpente subcylindrico, demum epidermide secedente denudatis; ascis longissimis teretibus, dilute fuscidulis, octosporis; sporidiis filiformibus asco paullo brevioribus, fasciculatis, dein e parte superiore dissilientibus, basi fixis, subtiliter multiseptatis. 2359

Hab. in caulibus Galii Molluginis et Isatidis tinctoriæ in Helvetia.

8. **Ophiobolus carnathicus** Hazsl. Math. es term. Közlem. XXV, 2, 2360
Budapest, 1892, p. 166, tab. XI, fig. 46. — Peritheciis globosis, ostiolo papilliformi ex substrato fere totaliter emergentibus, nigris, nitidis; ascis cylindraceis, in stipitem brevem attenuatis, 12-14 p. crassis; sporidiis linearibus, guttulis globosis in seriem moniliformem per totum sporidium associatis farctis, demum loculatis, loculis æqualibus.

Hab. in caulibus Pedicularis Hacquetii in Carpathis centralibus Hungariæ.

9. **Ophiobolus stromaticus** Hazsl. Math. es term. Közlem. XXV, 2, 2361
Budapest, 1892, p. 165, tab. XI, fig. 47. — Peritheciis emergentibus, apicibus vel solummodo rostris ex pseudostromate a mycelio latitante denso, nigrescente formato; rostrorum longitudine

vel totum vel medium diametrum perithecii æquante; ascis cylindricis, deorsum æqualiter decrescentibus; sporidiis linearibus, primum sporidiolis instructis, demum septatis in fasciculum junctis.

Hab. in caulibus Polygoni Persicariæ in Hungaria.

10. **Ophiobolus elegans** Jacz. Bull. Soc. Imp. des Natural. de Moscou. 1896, n.. 1, p. 71. — Peritheciis emergentibus, sparsis, nigris, glabris, ostiolo conico, diametrum perithecii æquante v. longiore; ascis cylindraceis, 10 μ. latis; paraphysibus filiformibus, simplicibus; sporidiis vermicularibus, sinuatis, chlorinis, 110-120 × 3,7, pluriguttulatis, dein in articulos 7 $^1/_2$-12 μ. long. dilabentibus. 2362

Hab. in foliis putridis Populi tremulæ, Smolensk Rossiæ.

11. **Ophiobolus javanicus** Penz. et Sacc. Malpighia XI, 1897, p. 406. — Peritheciis hinc inde breviter seriatis, globoso-depressis, innatis, 0,5 × 0,2 mm., nigris, glabris, ostiolo longiusculo, sed matricem inflatulam vix punctiformi-perforante; ascis clavulatis, breve stipitatis, apice rotundatis, 45-50 × 7-8, octosporis; paraphysibus filiformibus tortuosis; sporidiis bacillaribus, curvulis, utrinque obtusis, 42-45 × 1 $^1/_2$-2, hyalinis, 5-6-nucleatis. 2363

Hab. in culmis emortuis Bambusæ, in horto bot. Bogoriensi, Java. — Forma et magnitudine perithecii, ascorum et sporidiorum ab affinibus *O. Andropogonis* et *O. Œdemate* satis differt.

OPHIOCHÆTA Sacc. — Syll. II, p. 352, ut subg. (1883); IX, p. 934, XI, p. 352.

1. **Ophiochæta Raciborskii** Penz. et Sacc. Malpighia, XI, 1897, p. 406. Peritheciis gregariis, superficialibus, globosis, nigris, 250 μ. diam., apice obtusis, setulosis, setulis aterrimis, brevibus, acutis, 30-40 × 4; ascis cylindraceis, breve stipitatis, apice rotundatis, filiformi-paraphysatis, 130-150 × 9-10, octosporis; sporidiis bacillaribus, curvulis, crebre multiseptato-guttulatis, hyalinis, utrinque obtusulis, 60-70 × 3. 2364

Hab. in lignis putridis, Java. — *Oph. gracili* et *O. helminthosporæ* affinis, sed notis nonnullis satis deflectens.

OPHIOCERAS Sacc. — Syll. II, p. 358, IX, p. 938, XI, p. 353.

1. **Ophioceras majusculum** Penz. et Sacc. Malpighia, XI, 1897, p. 409. — Peritheciis hinc inde gregariis, superficialibus, perfecte sphæricis, carbonaceis, nigris, glabris, 0,7 mm. diam., ostiolis bacillari-cylindraceis, rectis curvulisve, 1,5 mm. long.; ascis (jam resorptis); 2365

sporidiis filiformi-bacillaribus, utrinque obtusulis, 90-100 × 2-2½, curvulis, multinucleatis, hyalinis.

Hab. in ramis corticatis putridis, Tjibodas, Java.

2. **Ophioceras Hystrix** (Ces.) Sacc. Syll. II, p. 359. — **O. tjibodense** 2366
Penz. et Sacc. Malpighia XI, 1897, p. 409. — A typo differt peritheciis glabris, levibus nec pulverulentis, 0,5 mm. diam., ostiolo 700–1000 × 100; ascis longiusculis, apice 2-foveolatis, 85–90 × 9-10; sporidiis utrinque obtusulis, 48-60 × 4-5, deorsum leniter attenuatis, 12-15-cuboideo-nucleatis v. granulosis, hyalinis.

Hab. in lignis putridis, Tjibodas, Java.

BACTROSPHÆRIA Penz. et Sacc. Malpighia XI, 1897, p. 407 (Etym. *bactron* baculus et *sphæria*, ob formam cylindraceam perithecii et sporidiorum). — Peritheciа superficialia, verticaliter elongato-cylindracea, sursum angulosa, verruculosa, membranaceo-carbonacea, nigra, ostiolo sulcato-radiato. Asci cylindracei aparaphysati, octospori. Sporidia bacillaria, pluriseptata, subhyalina, ascum subæquantia. — A gen. *Cylindrina* Pat. differt peritheciis longitrorsum rugoso-sulcatis, ostiolo sulcato-radiato etc.

1. **Bactrosphæria asterostoma** Penz. et Sacc. l. c. — Peritheciis late 2367
gregariis, tereti-oblongis, basi leniter coarctatis; hyphis mycelicis repentibus, subcontinuis, ramoso-anastomosantibus, pallidis, tenuibus, 3-4 μ. cr. cinctis, 400 × 160, sursum 4–6-sulcatis parceque verrucosis, nigris, intus cavis; ostiolo distincte radiatim 4-6-sulcato; ascis crasse cylindraceis, subsessilibus, apice rotundatis, 120-180 × 20-24 vel 200 × 16–18, aparaphysatis, 8-sporis; sporidiis parallelis, bacillaribus, leniter curvis, utrinque obtusulis, 24–30-septatis, non constrictis, 120-140 × 5½–7, loculis cuboideo-nucleatis, hyalinis.

Hab. in cortice emortuo Elettariæ, Tjibodas, Java. — Inter perithecia sæpe nascuntur hyphæ filiformes flexuosæ, septatæ, 200-300 × 5-6, subsimplices, fuligineæ, conidiis obovatis, 1-septatis, 20-22 × 9, non constrictis intermixtæ, *Cladotrichi* speciem sistentes: an *Bactrosphæriæ* status conidiophorus?

DILOPHIA Sacc. — Syll. II, p. 357, IX, p. 937.

1. **Dilophia Magnoliæ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 131. 2368
— Peritheciis 3-6 circinatim aggregatis, cortice insidentibus, ovato-globosis, membranaceis, ½–¾ mm. diam.; ostiolis breve cylindraceis, subsulcato-rimosis v. levibus, in fasciculum prominulum

erumpentibus; ascis clavato-cylindraceis, brevo stipitatis, 90-110 × 8-10; paraphysibus inconspicuis v nullis; sporidiis distichis, oblongo-fusoideis, hyalinis, demum 1-septatis, 20-23 × 5-6, leniter curvulis, appendicula gracili hyalina setiformi, 15-30 μ. longa utrinque coronatis; stylosporis in peritheciis sparsis ovato-conicis erumpentibus insidentibus, 14-16 × 4-5, nulla appendicula donatis.

Hab. in truncis Magnoliæ Fraseri, W. Virginia Amer. bor. (NUTTALL).

LINOSPORA Fuck. — Syll. II, p. 354, IX, p. 935, XI, p. 352.

1. **Linospora capillaris** Penz. et Sacc. Malpighia XI, 1897, p. 409. 2369
— Peritheciis amphigenis, gregariis, innatis, globulosis, 0,3 mm. diam., clypeo stromatico foliaceo atro-nitido, suborbiculari, 0,5 mm. lato, ostiolo capillari, nigro, glabro, 1 mm. longo, rectiusculo, facile deciduo; ascis cylindraceis, apice rotundatis, subsessilibus, per basim dehiscentibus, 60 × 6, octosporis, aparaphysatis; sporidiis bacillaribus, curvulis, 45-50 × 1 ½-2, utrinque obtusulis, multiguttulatis, hyalinis.

Hab. in foliis coriaceis emortuis, Tjibodas, Java.

CEUTHOCARPON Karst. em. — Syll. II, p. 357.

1. **Ceuthocarpon tjibodense** Penz. et Sacc. Malpighia XI, 1897, p. 405. 2370
— Maculis vagis expallentibus; peritheciis amphigenis, innatis, globoso depressis, nigris, 0,3 mm. latis, ostiolo obsoleto; ascis cylindraceis, apice rotundatis, subsessilibus, copiose filiformi-paraphysatis, 100-120 × 6-7, octosporis; sporidiis parallelis, filiformibus, 100 × 2, utrinque obtusulis, 6-8-nucleato-pseudoseptatis, hyalinis.

Hab. in foliis emortuis Elettariæ. Tjibodas, Java. — Perithecia per epidermidem translucidam conspiciuntur.

2. **Ceuthocarpon depokense** Penz. et Sacc. Malpighia XI, 1897, p. 405. 2371
— Maculis angulosis v. circularibus, pallidis; peritheciis sparsis, innatis, depresso-globosis, nigris, 200 × 150, ostiolo obsoleto, cuticula diaphana rimose fissa tectis; ascis cylindraceis, apice rotundatis, brevissime stipitatis, aparaphysatis (?), octosporis, 65-70 × 4 ½-5; sporidiis filiformibus, 50 × 1 ½, continuis, hyalinis.

Hab. in foliis coriaceis morientibus, Depok, Java. — Differt ab affini *C. ferrugineo* peritheciis in quaque macula pluribus, nec singulis.

ACERBIA Sacc. — Syll. XI, p. 353.

1. **Acerbia culmigena** Penz. et Sacc. Malpighia, XI, 1897, p. 405. — 2372
Peritheciis gregariis, e basi subconvexa insculpta subsuperficialibus glabris, conoideis, carbonaceis, nigris, 0.7 mm. diam., ostiolo brevi acuto; ascis cylindraceis, apice rotundatis, 150-160 × 9-10, breve stipitatis, 8-sporis, aparaphysatis (?); sporidiis bacillaribus, utrinque obtusis, creberrime guttulatis, 95-100 × 3, rectis curvulisve, hyalinis.

Hab. in culmis emortuis Bambusæ, Tjibodas, Java. — Genus *Acerbia* erostre ab *Ophiocerate* rostrato distingui meretur.

LEPTOSPORELLA Penz. et Sacc. Malpighia XI, 1897, p. 406 (Etym. a *Leptospora*, cui affinis). — Perithecia superficialia, carbonacea, globosa, papillata, atra, glabra. Asci elongati, octospori. Sporidia cylindrico-vermicularia, genuine v. spurie pluri-septata, hyalina, — A gen. *Leptospora* et *Lasiosphæria* peritheciis omnino calvis imprimis recedit; ab *Acerbia* peritheciis omnino superficialibus, habitu etc.

1. **Leptosporella gregaria** Penz. et Sacc. l. c. p. 407. — Peritheciis 2373
in ligno atrato superficialibus, dense gregariis, globosis, atro-nitidis, 0,8-1 mm. diam., exquisite acute papillatis, carbonaceis; ascis clavatis, apice rotundatis, breve stipitatis, 100 × 9-10, octosporis, paraphysibus filiformibus copiosis; sporidiis bacillaribus, deorsum curvis, 55-70 × 2 1/2-3, utrinque obtusis, initio varie guttulatis, dein 7-septatis, hyalinis.

Hab. in ligno putri, Tjibodas, Java.

2. **Leptosporella sparsa** Penz. et Sacc. l. c. p. 407. — Peritheciis in 2374
ligno nigrificato sparsis, superficialibus, globoso-conicis, carbonaceis, nigris, 0,3 mm. diam., papillatis, glabris; ascis tereti-fusoideis, deorsum acutatis, initio sub apice leniter coarctatis, 90-120 × 9-12, aparaphysatis (?), octosporis; sporidiis cylindraceis, sursum incurvatis, utrinque obtusulis, 30-35 × 3, plasmate inæqualiter partito, hyalinis.

Hab. in lignis putrescentibus, Java.

VIALÆA Sacc. Bull. Soc. Myc. de Fr. 1896, p. 66. (Etym. a Petro Viala, eximio *Vitis* morborum monographo atque mycologo). — Stroma valseum, pustulatum, corticale. Perithecia in quoque stromate plura, ostiolis breviusculis, vix convergentibus, disco minuto circulari epidermide velato. Asci 8-spori, elongati, aparaphysati; sporidia prælonga, bifusoidea, utrinque acuta, medio angustata, 1-

septata, hyalina. Sporidiorum forma omnino peculiari genus præ-distinctum.

1. **Vialæa insculpta** (Fr.? Oudem.!) Sacc. Bull. Soc. Myc. de Fr. 1896, 2375
p. 67, tab. V, fig. 10. *Sphæria insculpta* Fr. Elench. II, p. 95 (?), Oudem. Mat. Mycol. Neerl. II, 1874, p. 63, tab. VI, fig. 9! *Zignoella ? insculpta* (Fr.) Sacc. Syll. II, p. 225. — Stromatibus laxe gregariis, pustulatis, epidermide tumidula velatis, 2 mm. diam., intus flavidulis; peritheciis subdistichis, sat numerosis, globoso-depressis, $^1/_4$ mm. diam., intus albidis, subinde subsparsis, collis breve cylindraceis vix convergentibus, ostiolis obtusis, vix erumpentibus; ascis cylindraceis, 180 × 15, apice rotundatis, breve stipitatis, aparaphysatis, 8-sporis; sporidiis distichis, curvulis, elongato-bifusoideis, 75 × 6, utrinque attenuatis medio angustatis, 1-septatis, hyalinis, farctis.

Hab. in ramis emortuis Ilicis Aquifolii, Rigny Galliæ (Flageolet), in Neerlandia (Oudemans), in Italia bor. (Carestia).

WINTERELLA Sacc. — Syll. II, p. 364, subgen. (1883), nec Berl. 1891 *(= Winterina).*

1. **Winterella eutypoides** Penz. et Sacc. Malpighia 1897, p. 504. — 2376
Longe et late effusa, maculas varias e fusco nigricantes in matricis superficie æquali efformans; peritheciis omnino immersis, globulosis, 0,3–0,5 mm. diam., tenui-membranaceis, ostiolis apice dilatato-conoideis, breviter emergentibus et matricem punctato-scabridam efficientibus; ascis cylindraceis, apice initio acutato-truncatis, 100-120 × 9–12, paraphysibus filiformibus, guttulatis obvallatis, octosporis; sporidiis parallele fasciculatis, bacillaribus, rectis curvulisve, utrinque rotundatis, 80-100 × 2,5–3,5, plasmate in cylindros 12-14-partito v. 20-30-guttulato, hyalinis.

Hab. in stipitibus emortuis Plectocomiæ elongatæ et Acrocomiæ sclerocarpæ, Tjibodas, ins. Java. — Ad genus *Winterella* Sacc. (Syll. II, p. 364, ut subg.), quod ut *Eutypa* scolecospora habenda est, ad diem pertinent: *W. anthostomoides* (Rehm) Sacc. Sylloge fung. II, p. 364 *(Cryptospora)*; *W. diaporthoides* Sacc. et Paol. Syll. fung. IX, p. 938 *(Ophioceras)*, et præsens *W. eutypoides* Penz. et Sacc.

MAURYA Pat. Bull. Soc. Mycol. Fr. 1898, p. 56, t. VII, fig. VI. (Etym. a cl. Paulo Maury fung. collect.). — Stroma superficiale, effusum, magnum, crassum, determinatum, carbonaceo-coriaceum,

atrum, nudum. Perithecia immersa, monosticha, atra, ostiolis papilliformibus. Asci fusoidei, octospori, paraphysati. Sporidia linearia, transverse septata, fuligineo-olivacea. — Est *Hypoxylon* scolecosporum.

1. **Maurya hypoxyloidea** Pat. l. c. — Stromate 3-5 cm. lat. repando-lobato, rugoso-tuberculoso, inferne applanato laxe adnato, atro-opaco, supra minute papillato, margine obtuso, recto v. inflexo, contextu atro coriaceo-carbonaceo; peritheciis distantibus, ovoideis, 440 × 300; ascis 140 × 10-15, diffluentibus; paraphysibus ramulosis, brunneo-guttulatis, mucosis; sporidiis linearibus parallelis, rectis v. curvatis, utrinque obtusiusculis, 110 × 4-6, fuligineo-olivaceis, guttulatis, transverse 5-7-septatis. 2377

Hab. in truncis in Mexico (P. Maury).

Fam. 3. Hypocreaceæ De Not.

Sect. 1. Hyalosporæ.

HYPONECTRIA Sacc. — Syll. II, p. 455, XI, p. 354.

1. **Hyponectria Raciborskii** Penz. et Sacc. Malpighia 1897, p. 508. — Peritheciis in *Physari* sporangiis immersis, globulosis, perexiguis, 80-90 μ., diam., ostiolo?; contextu pertenui, minute celluloso, pallide flavido; ascis cylindraceis subsessilibus, aparaphysatis, apice rotundatis, 35-45 × 3,5-4, octosporis; sporidiis oblique monostichis, oblongo-ellipsoideis, 6,5-7,5 × 3, biguttulatis, hyalinis. 2378

Hab. in sporangiis Physari didermoidis Rost. immersa, Tjibodas in Java. — A *Nectria Rexiana* Ell., in *Chondriodermate* quodam parasitica, omnino recedit peritheciis multo minoribus, non villosis etc.

NECTRIELLA Sacc. — Syll. II, p. 448, IX, p. 941, XI, 354.

1. **Nectriella tracheiphila** E. F. Smith, Proc. Amer. Assoc. Advanc. of Sc. 1896, vol. XLIV, p. 190. (Diagnosis nulla). 2379

Hab. in Vigna sinensi, Brassica, Citrullo, Gossypio etc. in Amer. bor. — Ambigua species, teste auctore, ad *Melanosporam* nutat. Cum *Fusarii* specie metagenetice juncta est.

2. **Nectriella aurantia** Penz. et Sacc. Malpighia XI, 1897, p. 506. — Peritheciis hinc inde densiuscule gregariis, in subiculo byssino albo parco superficialiter insidentibus, globulosis, pallide aurantiis, 2380

100-120 μ. diam., ostiolo punctiformi; ascis fusoideo-clavatis, 30-35 × 8, breve stipitatis, apice obtusulis, octosporis, paraphysibus obsoletis; sporidiis oblongo-ellipsoideis, rectis, utrinque obtusulis, distichis, 8-9 × 3, hyalinis, 4-guttulatis.

Hab. in ramulis siccis, Tjibodas, ins. Java. — Subaffinis *R. Resinæ*.

3. **Nectriella farinosa** P. Henn. Hedw. 1897, p. 219. — Peritheciis 2381
aggregatis, interdum singularibus, sphæroideis, ca. 150-200 μ., flavis, dense pulverulento-granulosis vel farinaceis, granulis subglobosis vel oblongis, acutangulis, 25-50 μ. diametro tectis; ascis clavatis, stipitatis, apice obtuso-rotundatis; sporidiis oblongo-cylindraceis, continuis, utrinque obtusis, intus 3-guttulatis, 12-15 × 3 1/2-4.

Hab. in ligno pr. Blumenau Brasiliæ (Möller). — *Nectriellæ Mœlleri* P. Henn. affinis.

4. **Nectriella Mœlleri** P. Henn. Hedw. 1897, p. 219. — Peritheciis 2382
gregariis, striiformibus, corticem erumpentibus, obovoideis, dein depresso-subcupuliformibus, 100-150 μ. diam., pulverulentis, flavis; ascis clavatis, stipitatis, vertice obtuso-rotundatis, 35-55 × 5-7; sporidiis subcylindraceis, oblongis, continuis, utrinque obtusis, sæpe inæquilateralibus, monostichis vel subdistichis, intus granulosis, 9-12 × 3-4.

Hab. in corticibus arborum pr. Blumenau Brasiliæ (Moeller).

5. **Nectriella miniata** P. Henn. Hedw. 1897, p. 219. — Peritheciis 2383
superficialibus, aggregatis, minutis, obovatis vel subpiriformibus, levibus, apice papillatis, flavo-miniatis; ascis clavatis, substipitatis, apice obtusis, 8-sporis, 50-60 μ. longis, p. sporif. 30-40 μ. longis, 4-6 μ. crassis; sporidiis oblique monostichis vel distichis, oblongis, utrinque obtusis, continuis, hyalinis, 7-8 × 3 1/2-4 intus 2-guttulatis.

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Moeller).

6. **Nectriella pallidula** Penz. et Sacc. Malpighia XI, 1897, p. 507. 2384
— Peritheciis hinc inde in soros minutos, 1-1,3 mm. diam., congestis, in *Melchioria* plerumque parasiticis, globulosis, albido-melleis v. rubido-melleis, 100-130 μ. diam., vix papillatis, contextu tenui, pallide rufo-ochraceo, diaphano; ascis cylindraceis, breviter stipitatis, apice obtusis, parce paraphysatis, octosporis, 36-42 × 5-6; sporidiis distichis v. oblique monostichis, ovato-fusoideis, inæquilateris, 6,5-7,5 × 2,5-3, hyalinis, minute guttulatis.

Hab. in peritheciis et prope perithecia Melchioriæ in caulibus Elettariæ, Tjibodas, ins. Java.

7. **Nectriella rufo-fusca** Penz. et Sacc. Malpighia XI, 1897, p. 507. 2385
— Peritheciis gregariis, superficialibus, 200-250 μ. diam., rufo-fuscis, demum atratis et subcollabascentibus, ostiolo punctiformi, vix papillato; ascis tereti-clavulatis, 33 × 5-6, breviter stipitatis, obtusulis, octosporis; sporidiis distichis, oblongis, utrinque obtusulis, 12 × 4-5, hyalinis, 4-guttulatis.

Hab. in caulibus emortuis Elettariæ, Tjibodas, ins. Java. — Colore peritheciorum et dimensionibus sporidiorum ab affinibus diversa.

8. **Nectriella Lophocoleæ** Massal. Mem. dell'Acc. delle Sc. Med. e 2386
Nat. di Ferrara, 5 Magg 1895, fig. 5-8. — Peritheciis superficialibus solitariis v. subaggregatis, subaurantiacis, ovoideis, subiculo lato filamentoso, pallido insidentibus, 120-150 μ. diam., superficie hispido-setuliferis, setulis continuis, pachydermicis, simplicibus, 8-10 μ. cr., perithecium dimidium longitudine adæquantibus, ostiolo apicali vix distincto perviis, parietibus membranaceis; ascis cylindraceo-clavatis, inferne sat longe pedicellato-stipitatis, 70-110 × 16-22 p. sp.; sporidiis octonis ellipsoideis, 22-30 × 10-14, hyalinis, utrinque rotundatis, guttulatis; paraphysibus numerossimis capillaceis interdum ramosis, 1-1,5 μ. cr., asco longioribus.

Hab. ad folia viva Lophocoleæ cuspidatæ in alp. Apuanis pr. Massa Carrara (C. Rossetti).

9. **Nectriella** *(Notarisiella)* **setulosa** Penz. et Sacc. Malpighia XI, 2387
1897, p. 507. — Peritheciis densiuscule gregariis, superficialibus, exiguis, globoso-hemisphæricis, vix papillatis, 250 μ. diam., melleis, pilis composito-fasciculatis, brunneolis, rigidulis, parce vestitis; ascis tereti-clavatis, breve stipitatis, obtusis, 50-60 × 9, octosporis, obsolete paraphysatis; sporidiis distichis, cylindraceis, utrinque rotundatis, rectis, 20 × 4-5, ex hyalino fusciduli, continuis, 4-guttatis.

Hab. in caulibus putrescentibus Elettariæ, Tjibodas, ins. Java. — Pezizulam quamdam melleam imitatur.

BYSSONECTRIA Karst. — Syll. II, p. 456, IX, p. 942, XI, p. 354.

1. **Byssonectria delicatula** Penz. et Sacc. Malpighia XI, 1897, p. 507. 2388
— Subiculo effuso, tenuissimo, candido, ex hyphis filiformibus, 1 μ. cr. curvato-furcatis, hyalinis formato; peritheciis globoso-depressis, 150 μ. diam., pallide ochraceis, ostiolo obsoleto; contextu tenuissimo; ascis cylindraceis, breve stipitatis, apice rotundatis, aparaphysatis, 45-50 × 5, octosporis; sporidiis monostichis, ellipsoideis, 5-6 × 3, hyalinis.

Hab. in caulibus putridis in Horto Bogoriensi, ins. Java. — Parvitate sporidiorum et colore peritheciorum a ceteris generis speciebus diversa.

CHILONECTRIA Sacc. — Syll. II. p. 453, IX, p. 945.

1. **Chilonectria flavovirens** (Otth) Sacc. Hedw. 1896 pag. XXXII, 2389
Nectria (Cosmaria) *flavovirens* Otth, Bern. Mittheil. 1868, p. 57. — Stromate parco, carnoso, fulvido-lateritio, peritheciis cæspitose concrescentibus obsito; peritheciis subgloboso-piriformibus, subpedicellatis, rufulis, mollibus, demum collapsis, furfure denso-flocculoso flavo-virente obductis, ostiolo nudo nigro-papillato; ascis elongato-clavatis, myriosporis; sporidiis hyalinis, perexiguis, 3 × 1, ellipsoideis; paraphysibus parum discretis.

Hab. in ramis tenuibus Aceris Pseudoplatani in Helvetia.

2. **Chilonectria macrospora** Penz. et Sacc. Malpighia XI, 1897, p. 508. 2390
— Peritheciis laxe gregariis, superficialibus, globosis, papillatis, 200 μ. diam., atro-rubris, sublevibus, glabriusculis; ascis teretifusoideis, 180 × 16, breve stipitatis, apice obtusulis, aparaphysatis (?), 14-20-sporis; sporidiis fusoideis, utrinque acutis, initio 15-16 × 5, tandem 25-27 × 6,7, intus nubilosis, hyalinis.

Hab. in spatha Palmarum in Horto Bogoriensi, ins. Java. — Sporidiis pro genere in quoque asco paucis et majusculis mox dignoscitur.

3. **Chilonectria javanica** Penz. et Sacc. Malpighia XI, 1897, p. 508. 2391
— Peritheciis hinc inde acervulatis, globulosis, minute papillatis, 0,5 mm. diam., sordide rubris, ad *Stilbi* basim sitis; ascis (maturis?) tereti-clavulatis, apice truncatis, 60 × 6-7, aparaphysatis, myriosporis; sporidiis oblongis, curvulis, perexiguis, 2 × 0,5, hyalinis. *Stilbi* stipitibus fasciculatis cylindraceis, 1-1,5 mm. long., rubescentibus, apice in discum atrum depressum, subinde centro proliferum dilatatis; basidiis in disci superficie stipatis, paliformibus, fuligineis, apice dilutioribus, 14 × 4; conidiis oblongis, 13-15 × 5, medio subinde spurie septatis tenuissimeque incrassatulis, dilute fuscis.

Hab. in corticibus putrescentibus in ins. Java. — Forte specimina non prorsus matura, hinc determinatio paullulum dubia. Ubi confirmetur, certe novi generis typus *(Chilostilbe)*.

HETERONECTRIA Penz. et Sacc. Malpighia XI, 1897, p. 509 (Etym. *heteros* diversus et *Nectria*). — Perithecia *Nectriæ* h. e globulosa,

molliuscula, læte colorata v. saltem non nigra, subsuperficialia. Asci cylindracei, octospori. Sporidia cylindracea, varie curvata, continua, hyalina, utrinque uniciliata (demum apice incrassato et sub ipso 1-septata). — A *Paranectria,* cui affinis, recedit sporidiis continuis; *Leptosporas* quoque in mentem revocat; hinc genus anceps et in vivo plenius scrutandum.

1. **Heteronectria spirillospora** Penz. et Sacc. l. c. — Peritheciis dense gregariis, superficialibus, globoso-depressis, 400 μ. diam., pallide olivaceis (in vivo rubescentibus), supra areolam subcircularem atro-olivaceam gerentibus, ostiolo centrali papillato nigricante; contextu perithecii celluloso sordide virenti, cellulis peristomaticis radiantibus elongato-ramosis, saturatioribus; ascis clavatis longiuscule stipitatis, sursum attenuato-obtusis, 115-125 × 12-14, octosporis, tenuiter paraphysatis; sporidiis cylindraceis, sigmoideo-curvatis (spirilliformibus), hyalinis, continuis, guttulatis v. farctis, 30-45 × 3-4, utrinque cilio 14-15 × 1,5 curvulo auctis, demum apice incrassato capitatis, capitulo 15 × 6, basi septato, 1-nucleato, subhyalino. 2392

Hab. in culmis bambusinis putridis, Tjibodas, ins. Java. — Nucleus dilute olivascens. Pars perithecii inferior pallide olivacea videtur constare e tegumento quodam, in areola superiore deficiente

LISIELLA Cooke. — Syll. IX, p. 945.

1. **Lisiella Syringæ** (Hazsl.) Sacc. et Syd., *Lisea Syringæ* Hazsl. Math. es term. XXV, 2 Budapest 1892, p. 6, tab. I, fig. 1. — Peritheciis superficialibus, ovatis, apiculatis, nudis, cæspitosis v. solitariis; ascis clavatis deorsum æqualiter attenuatis, 8-sporis, aparaphysatis; sporidiis distichis, hyalinis, ovalibus, simplicibus, 14-16 × 7-8. 2393

Hab. in ramis Syringæ vulgaris, Hungaria.

POLYSTIGMA Pers. — Syll. II, p. 458, IX, p. 945, XI, p. 354.

1. **Polystigma obscurum** Juel, Oefversigt of K. Vet.-Akad. Förhandl. 1894, n. 9, p. 497, fig. II, E. — Stromatibus plerumque totum folium occupantibus, in pagina inferiore albidis, in superiore flavo-rubescentibus, demum griseo-brunneis; spermogoniis plerumque epiphyllis, immersis, ovoideis; spermatiis bacillaribus, 8 μ. longis, 2 μ. cr.; peritheciis globosis, amphigenis, nigricantibus, ostiolo parum prominente; ascis cylindraceis, breve stipitatis, 85 × 10; sporidiis monostichis, ellipsoideis, hyalinis, 10 × 6. 2394

Hab. in foliis vivis Astragali alpini et A. oroboidis in Suecia et Norvegia.

2. **Polystigma nigroviride** Rehm. Hedw. 1896, p. (118). — Stromatibus hypophyllis solitariis, late sessilibus rotundis plus minusve hemisphæricis, siccis, concaviusculis vel planis, papillulis minimis exasperatis subviridulis dein nigris intus nigrofuscis, mollibus, 12-20 perithecia includentibus, 0,5-1,5 mm. diam.; ascis cylindraceis, apice rotundatis, c. 180 × 9, 8-sporis; sporidiis oblongis, obtusis, crasse tunicatis, flavido-hyalinis, 1-cellularibus, plerumque granulis oleosis repletis, 9-11 × 7, 1-stichis. 23

Hab. in foliis vivis Melastomatis pr. San Jorge, Prov. Pichincha Æquatoriæ (Lagerheim). — Stromatibus elapsis, foliorum parenchyma lacunosum flaccidumque evadit ubique in pag. sup. conspiciuntur maculæ subconvexæ, flavidæ, rotundatæ, 2-3 mm. latæ.

MOELLERIELLA Bres. Hedw. 1896, p. 298 et Bull. Soc. bot. ital. 1897, p. 291-292 (Etym. a cl. mycologo A. Moeller). — Stroma subcarnosum, verruciforme, parenchymati foliorum innatum: perithecia plus minusve immersa; asci polyspori; sporidia subfusoidea, continua, hyalina.

1. **Moelleriella sulphurea** Bres. l. c. — Hypophylla; stromatibus verruciformibus e peritheciis prominulis granulatis, viridi-luteis; peritheciis semiimmersis, obovatis, minute papillatis, concoloribus; ascis cylindraceo-subventricosis, basi attenuato-pedicellatis, 250-300 × 10-16, polysporis; sporidiis hyalinis, fusoideis, inæqueis, 12-13 × 2½-3. 23

Hab. in foliis arborum vivis v. emortuis pr. Blumenau Brasiliæ (Möller). — Genus hoc inter Hypocreaceas prope *Polystigma* locandum videtur. Quoad generis autonomiam cfr. Bresadola in Bull. Soc. bot. ital. 1897 p. 291. Sint sporidia, ut malunt cl. Moeller et Lindau, a primo initio filiformia, tamen citissime in cellulas fusoideas inordinatas nec seriatas dilabuntur, quæ notâ deest in gen. Hypocrella, hinc *Mœlleriella* distingui meretur.

Sect. 2. Phæosporæ.

MELANOSPORA Corda. — Syll. II, p. 461, IX, p. 950, XI, p. 356.

1. **Melanospora octahedrica** Pat. Cat. rais pl. cel. Tunisie, 1897, p. 109; Explor. Tun. Illustr. bot. tab. III, fig. 8. — Peritheciis superficialibus, sparsis aut 2-4 gregariis, dimidiatis, fulvis, mollibus, cellulosis, squamis fibrosis, erectis, rigidis, concoloribus tectis, in ostio- 29

lum longissimum, brunneum, fibrosum, glabrum, 80 μ. crassum, 1/3 mm. longum, apice penicillato-laceratum, et sporidiis protrudentibus repletum productis; ascis ovatis, sessilibus, 18-20 × 10-12 octosporis, diffluentibus, aparaphysatis; sporidiis hyalinis, dein atro-purpureis, octahedricis, 5-7 μ. latis.

Hab. in foliis putridis Eucalypti in Tunisia.

SPHÆRODERMA Fuck. — Syll. II, p. 459, IX, p. 949, XI, p. 355.

1. **Sphæroderma damnosum** Sacc. in Berlese Rivista Pat. veget. 1895, 2398
p. 1-6, p. (8), tab. VII-VIII. — Mycelio inter vaginam et culmi basim effuso; hyphis sterilibus filiformibus, ramosis, septatis, intertextis, 3-4 μ. crassis, initio hyalinis, dein roseo-incarnatis; conidiophoris (*Fusarii* sp.) adscendentibus, filiformibus, elatis, sursum plumas opposito-ramosis, ramis ultimis brevibus, verticillato-ternis, apice angulato-denticulatis; conidiis fusoideis, leniter curvis, utrinque obtusulis, initio triseptatis, tandem constrictis et (præcipue in culturis) 5-septatis, dilute roseis, 30-40 × 8; perithecis ascophoris superficialibus ex eodem mycelio hinc inde subsparse nascentibus, vagina tectis e depresso globosis, brevissime papillatis, 200-250 μ. latis, ochraceis, ostiolo mox in setulas breves, subhyalinas divergentes abeunte, contextu molli, laxe celluloso, melleo; ascis obpiriformibus v. late clavatis, breve stipitatis, 34-38 × 25-30, aparaphysatis; sporidiis subtristichis, limoniformibus, 18-21 × 10-12, levibus, initio hyalinis, crasse guttatis, dein atro-olivaceis intusque minute, dense guttulatis (nec reticulatis), denique in globulum atrum in apice ostioli collectis.

Hab. ad basim culmorum, intra vaginas, Tritici sativi, quod late necat in Sardinia (S. Cettolini).

2. **Sphæroderma marchicum** (Lind.) Sacc. et Syd. *Chætonium marchi-* 2399
cum Lind. Hedw. 1896, p. 56, cum fig. — Perithecis rotundis, levibus, e luteolo brunneis, 180-230 μ. diam., vertice ostiolo pertusis, setulis paucis usque 80 μ. longis hyalinis vestitis; ascis brevibus, clavatis, 58-70 × 27-29; sporidiis totam ascorum cavitatem explentibus, citriformibus, 20-24 × 11-14, obscure brunneis v. brunneo-nigris; paraphysibus non visis.

Hab. ad folia putrida pr. Berolinum Germaniæ.

3. **Sphæroderma affine** Sacc. et Flag. Bull. Soc. Myc. de Fr. 1896, 2400
p. 67, tab. V, fig. 11. — Perithecis basi infossa superficialibus, subsparsis, hemisphæricis, 1/3 mm. diam., papillatis, rubro-lateritiis, pilis parvis tenuibus, 25-35 × 2, hyalinis, conspersis; ascis ovato-

longis, breve stipitatis, tetrasporis, 45 × 15, cito evanidis; sporiciis ovoideo-limoniformibus, 22-24 × 12-14, primo hyalinis guttulatis, demum intense fuligineis, utrinque hyalino-apiculatis.

Hab. in ligno putrido udo (stercorato!) Fagi, socia *Sporormia gigaspora*, Rigny Galliæ. — Affine *Sph. bulbillifero*, sed asci 4-spori.

THUEMENELLA Penz. et Sacc. Malpighia XI, 1897, p. 518 (Etym. a cl. Barone Felice Thuemen de scientia mycologica optime merito). — Stroma irregulariter globosum, superficiale, glabrum, carnoso-ceraceum, tota peripheria peritheciophorum. Perithecia omnino immersa, sphærica, ostiolo non emergente, pariete a contextu stromatis vix discreto. Asci e basi perithecii oriundi, cylindracei, paraphysati, octospori. Sporidia sphæroidea, continua, atro-brunnea, levia. — Accedere videtur ad gen. *Penzigia* sect. II, *Sarcoxylon* (Syll. fung. IX, p. 569), sed stroma vere hypocreaceum non radiatum, sporidia sphærica etc. Est quasi *Hypocrea* phæospora.

1. **Thuemenella javanica** Penz. et Sacc. l. c. — Stromate subglo- 2401
boso, depresso v. irregulari, levi, glabro, sulphureo, 3-7 mm. diam.; peritheciis ovato-globosis, profunde immersis, laxiusculis, 120-150 μ. diam., in collum breviter attenuatis, ostiolis punctiformibus, vix conspicuis; ascis cylindraceis, apice rotundatis, deorsum sensim attenuato-stipitatis, 55-65 × 8, octosporis; paraphysibus asco longioribus, filiformibus; sporidiis sphæroideis, 7-8 μ. diam., levibus, atro-fuligineis.

Hab. in ramis corticatis emortuis, Tjibodas ins. Java.

Sect. 3. Hyalodidymæ

NECTRIA Fr. — Syll. II, p. 479, IX, p. 955, XI, p. 357.

I. *Eu-Nectria* Sacc.

1. **Nectria kermesina** Otth, Bern. Mittheil. 1870, p. 103. — Stromate 2402
erumpente, carnoso compacto, pulvinato v. subgloboso; peritheciis cæspitosis, plerumque marginalibus, saturate rubris, membranaceis, globosis, levibus, ostiolo primum inconspicuo dein umbilicato pertusis, demum collapsis; ascis clavatis octosporis; sporidiis hyalinis, ellipsoideo-subcylindricis, 14-18 × 5-6,5 bilocularibus, passim quadrilocularibus; paraphysibus vix ullis distinctis.

Hab. in ramis Tiliæ, Bern in Helvetia.

2. **Nectria cinnabarina** (Tode) Fr. – Sacc. Syll. II, p. 479. — Var. 2403
hypocreæformis Hazsl. Math. es term. Közlem. XX. 2, Budapest 1892, p. 10. — Stromatibus basi radiciformibus, ex rimis corticis emersis, superne plano-pulvinatis, 3-4 mm. latis, sulphureis; peritheciis immersis, ovalibus, apice aurantiaco prominentibus; ascis fusiformibus v. clavatis, circiter 80 μ. longis, 8-sporis; sporidiis uniseriatis, oblongo-cylindricis, uniseptatis, massa aurantiaca farctis, in utroque apice appendicula granulosa hyalina aciculari ornatis, 15-20 × 7-10.

Hab. in ramis emortuis in Hungaria. — Revera a *N. cinnabarina* nimis recedit, ut ejus varietas habeatur. « An *Aponectria?* »

3. **Nectria Desmazierii** De Not. Sfer. ital. Cent. I, n. 4, nec Sacc. 2404
N. coccinea v. *cicatricum* Desm., *N. cicatricum* Tul. Carp. III, p. 77. — Exigua, erumpens, lætissime sanguineo-miniata; peritheciis cæspitosis confertis sed non coalescentibus, stromate pulvinato-hemisphærico v. elliptico carnosulo instructis, ovato-urceolatis, obtusis in sicco corrugatis, osculo latiusculo hiantibus, contextu tenui cellulis grandiusculis stratosis formato; ascis copiosis, teretibus, 8-sporis, aparaphysatis; sporidiis ellipsoideis, 2-locularibus medio constrictulis, hyalinis, 10 μ longis.

Hab. in ramis Buxi balearicæ, Pisa (Beccari) et in Gallia. — Sec. Tul. l. c. status hujus conid. est *Discellæ* spec.; forte *Tubercularia versicolor* Sacc. statum alterum conidiophorum sistit.

4. **Nectria Gibbera** Fuck. Symb. p. 177, D. Sacc. Myc. ital. n. 109, 2405
N. Desmazierii Sacc. Syll. II, p. 482 (exclus. stat. conid.!), nec De Not.

Hab. in ramis Buxi sempervirentis in Germania et Italia bor. — A genuina *N. Desmazierii* De Not. differt peritheciis carneo-diaphanis, minutissimis, subpapillatis statuque conidiophoro *Fusarium Fuckelii* Sacc. Syll. IV, p. 695, sistente.

5. **Nectria coronata** Penz. et Sacc. Malpighia XI, 1897, p. 510. — 2406
Peritheciis in soros varios depressos hinc inde congestis, globoso-depressis, atro-purpureis, 250-300 μ. diam., circulo distincto, papuloso superne notatis; circuli cellulis ovato-oblongis, emergentiliberis, 45 × 28, ochraceis; ostiolo brevissime papillato; ascis elongato-clavatis, octosporis; sporidiis ellipsoideis, 20 × 9, dilutissime ochraceis, intus crebre granulosis, distincte 1-septatis, non constrictis.

Hab. in corticibus emortuis, putridis, sociâ Nectria ambigua

v. pallenti, Tjibodas, ins. Java. — Species circuli præsentiâ vero distincta.

6. **Nectria eustoma** Penz. et Sacc. Malpighia XI, 1897, p. 509. — 2407
Peritheciis hinc inde in cæspitulos pulvinatos, 1-1,3 mm. diam. congestis, globulosis, 50 μ. diam., cinnabarinis, minute verruculosis, tandem leviter collabascentibus, apice areola suborbiculari discreta rubro-fusca, centro ostiolo minuto pertusa; perithecii contextu parenchymatico rubro-aurantio, areolæ exquisite radiato ochraceo-fusco; ascis fusoideis, subsessilibus, 75-85 × 15, octosporis, spurie paraphysatis; sporidiis distichis, oblongis, utrinque rotundatis, lenissime curvis, 1-septatis, non constrictis, 24-28 × 8-9, nubilosis, subhyalinis.

Hab. in ramis emortuis in Horto Bogoriensi, ins. Java. — Affinis *N. zelandicæ, tasmanicæ* et *discophoræ*, sed notis datis satis distincta.

7. **Nectria capitata** Bres. Hedw. 1896, p. 299. — Peritheciis in cæ- 2408
spitulos 2-4 mm. latos collectis, raro solitariis, superficialibus, glabris, ovoideo-capitatis, 250-300 μ. latis, $^1/_2$-$^3/_4$ mm. longis, basi connatis, purpureo-rubris, capitulo miniato, membranaceis, contextu indistincte celluloso, flammeo, ostiolo vix prominulo, subnigricante; ascis jam resorptis; sporidiis hyalinis elongato-ellipticis, medio uniseptatis, subconstrictis, 28-32 × 10-13, episporio longitudinaliter tenuissime striato.

Hab. ad cortices pr. Blumenau Brasiliæ (Möller). — Notis micrologicis *Nectriæ Balansæ* Speg. accedit, sed modus crescendi, habitus etc. diversa. Perithecia ovoideo-elongata, prope apicem constricta ita ut capitata videantur et bene statum juniorum, diminutum Agarici cujusdam repræsentent.

8. **Nectria Jungneri** P. Henn. Fungi camerun. I, in Engl. Jahrb. 2409
XXII, 1895, p. 75. — Peritheciis cæspitosis, sessilibus v. substipitatis, ovatis v. mammiformibus, puniceis, minute granulatis, 250-300 μ. diam., ostiolo papilliformi, obscuriore, dein concavo; ascis cylindraceo-clavatis, stipitatis, octosporis; sporidiis distichis, ellipsoideis v. oblongis, inæquilateralibus, 1-septatis, non constrictis, utrinque rotundatis, hyalinis, 24-28 × 8-10.

Hab. ad ramos, Kamerun (Jungner).

9. **Nectria Bonii** Pat. Journ. de Bot. 1897, p. 369. — Peritheciis 2410
in cæspitulos rotundatos (10-20) aggregatis, raro sparsis ac solitariis, lateritiis, subglobosis, dein depressis, $^1/_3$ mm. circiter latis, rugosis, ostiolatis, contextu parenchymatico-celluloso, cellulis an-

gulosis, 15-20 μ. diam.; ascis cylindraceis, 180-200 × 12-15, octosporis, aparaphysatis; sporidiis monostichis, hyalinis v. pallidissime rubescentibus, magnis, 30-40 × 10-12, rectis v. leniter curvulis, utrinque obtusis, medio septe divisis, constrictis vel non constrictis.

Hab. in culmis Bambusæ, Tonkin.

10. **Nectria subinsularis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 227. 2411
— Peritheciis cæspitosis, confertis, stromate erumpenti, applanato, disciformi, albido-ochraceo, 2-5 mm. diam., carnosulo insidentibus, pallide aurantiacis, globosis, circiter 300 μ. latis, levibus, glabris, ostiolo fusco, papillato instructis; ascis 70-80 × 20, octosporis, aparaphysatis; sporidiis distichis, ellipticis, utrinque acutiusculis, 23-25 × 6-7, medio 1-septatis, non constrictis, minutissime rugulosis, hyalinis, multiguttulatis.

Hab. in truncis Chusqueæ in Æquatoria (v. Lagerheim). — *N. insulari* Speg. affinis, sed sporidiis majoribus.

II. *Dialonectria* Sacc.

11. **Nectria ambigua** Penz. et Sacc. Malpighia XI, 1897, p. 511. — 2412
Peritheciis gregariis v. subsparsis, globulosis, superficialibus, obtuse papillatis, 250-300 μ diam., carneis, sublevibus; contextu parenchymatico, dilute ochraceo-roseo; ascis clavato-fusoideis, breve stipitatis, apice obtusulis, 60-68 × 9-11, octosporis; sporidiis distichis, oblongo-fusoideis, 18-20 × 5-6, uniseptatis, non constrictis, 2-4-guttatis, subhyalinis.

Hab. ad ramos putres, Tjibodas, ins. Java. — Var. **pallens**: peritheciis dilutius carneis. In corticibus, Tjibodas, ins. Java. — Affinis *N. depallenti* C. et H., sed sporidia breviora.

12. **Nectria carneo-flavida** Penz. et Sacc. Malpighia XI, 1897, p. 511. 2413
— Peritheciis sparsis v. cæspitulosis, superficialibus, globulosis, carneo-flavidis, 200-250 μ. diam., obsolete papillatis, eximie, sæpe lineatim verruculosis, contextu celluloso laxiusculo, dilute olivaceo-roseo; ascis fusoideo-clavatis, utrinque acutulis, 90 × 12, octosporis; sporidiis fusoideo-oblongis lenissime asperulis, 1-septatis, vix constrictis, hyalino-olivascentibus, 20-22 × 7-8.

Hab. in corticibus emortuis, Tjibodas, ins. Java. — *Nectriæ Veuilletianæ*, *N. illudenti* et *N. verruculosæ* subaffinis, sed notis datis distinguenda.

13. **Nectria trachycarpa** Penz. et Sacc. Malpighia XI, 1897, p. 511. 2414
— Peritheciis sparsis, superficialibus, majusculis, 0,5 mm. diam.,

globulosis, vix papillatis, distincte verruculosis, e roseo rubris; ascis tereti-clavatis, subsessilibus, apice rotundatis, octosporis, 90-100 × 15; sporidiis distichis, fusoideis, utrinque obtusulis, 30-33 × 9, uniseptatis, non constrictis, longitr. striatulis, hyalino-melleis.

Hab. in corticibus emortuis, Kanang Badak, ins. Java.

14. **Nectria nigella** Penz. et Sacc. Malpighia XI, 1897, p. 512. — Peritheciis laxe gregariis, superficialibus, subglobosis, 200-250 μ. diam., levibus, glabris, rubescentibus, dein nigricantibus et collabascentibus, ostiolo obsoleto; perithecii contextu parenchymatico, atro-fusco, ostioli radiante pallidiori; ascis tereti-fusoideis, initio apice acuminatis, 45 × 8, penta-octosporis; sporidiis oblique monostichis, fusoideis, 13-15 × 4,5-5, uniseptatis, non constrictis, farctis, hyalinis.

Hab. in corticibus emortuis, Tjibodas, ins. Java. — Affinis *N. patellarioidi* (E. et E.) Sacc., sed perithecia non contracto-stipitellata.

15. **Nectria tetraspora** Pat. Ann. Jard. Buitenz. 1897, I, suppl. p. 124. — Peritheciis erumpentibus, globosis, gregariis, papilliformi-ostiolatis, 200-300 μ. diam., glabriusculis, ochraceo-pallidis, ascis cylindraceis, apice obtusis, aparaphysatis, 40-50 × 5-6, tetrasporis; sporidiis mono-vel distichis, hyalinis, ovoideis, levibus, utrinque obtusis, medio 1-septatis, non vel vix constrictis, 10 × 4. 2416

Hab. in fructibus putrescentibus Diospyri, Java (Massart).

16. **Nectria Opuntiæ** Roll. Bull. Soc. Myc. de Fr. 1896, p. 5, t. I, fig. 2. — Peritheciis laxe gregariis, globosis v. collapsis, rugosis, carneis, $^1/_3$-$^1/_2$ mm. latis; ascis cylindricis, 8-sporis, 80 × 7-8; sporidiis monostichis, ovatis, 1-septatis, non constrictis, loculis 1-guttatis, 10-12 × 5; paraphysibus filiformibus. 2417

Hab. ad fibras Opuntiæ pr. Vallauris Galliæ merid. — A *N. sanguinea*, cui forsan affinis, forma et latitudine peritheciorum, ascis longioribus et sporidiis majoribus ad septa haud constrictis differt.

17. **Nectria Henningsii** Rehm, Hedw. 1889, p. 352. — Peritheciis sparsis v. gregariis, sessilibus, semiglobosis, siccis, plerumque patellariformiter collapsis, poro vix conspicuo pertusis, ceraceis, aurantiacis, parenchymatice contextis, basi hyphis hyalinis obsessis, 0,4-0,8 mm. diam.; ascis clavatis, teneris, 50-80 × 8-10, octosporis; sporidiis oblongis, apice rotundatis, rectis, 2-cellularibus, utraque cellula guttula oleosa 1 magna instructis, hyalinis, distichis, 9-12 × 4-4$^1/_2$; paraphysibus parcis, ramosis. 2418

Hab. ad vaginas foliorum putridorum Musæ in Palmario horti bot. reg. Berolinensis (P. Hennings).

18. **Nectria Binotiana** Sacc. Bull. Soc. Roy. Bot. Belg. XXXV, 1896, p. 129, tab. III, fig. 4. — Peritheciis hinc inde pauci-congregatis, erumpenti-superficialibus, stromate nullo fultis, globoso-ovoideis, obtuse papillatis, 140-160 μ. diam., levibus, dilute roseis, glabris, sed *Verticillii* hyphis candidis cinctis, contextu parenchymatico, tenui, aquose carneo; ascis tereti-fusoideis, subsessilibus, aparaphysatis, 50-60 × 5-6, apice obtuse tenuitus, minute bifoveolatis; sporidiis oblique monostichis v. distichis, 8-10 × 2-2 1/2, elliptico-fusoideis, utrinque obtusulis, obsolete 1-septatis, haud constrictis, hyalinis. 2419

Hab. in foliis Orchidearum epiphytarum emortuis in Brasilia (P. Binot). — Socium adest et verisimillime metageneticum *Verticillium candidulum* Sacc. var. *Binotianum* Sacc.; cæspitulis candidis, sparsis v. perithecia circumdantibus, hyphis typi, sed deorsum sæpe dilutissime fuscellis, 4 μ. crassis; conidiis oblongis, 5 × 2 1/2, hyalinis.

19. **Nectria phyllogena** Sacc. Bull. Soc. Roy. Bot. Belg. XXXV, 1896, p. 128, t. III, fig. 3. — Acervulis amphigenis, sed sæpius epiphyllis, erumpenti-superficialibus, sparsis, stromate pulvinato rubenti-ochraceo fultis, 1 1/2 mm. diam.; peritheciis 8-15 in quoque stromate, globulosis, breve papillatis, 0,2 mm. diam., demum leniter collabentibus, levibus, hyphis conidiophoris conspersis, dein glabris lateritio-rubellis; contextu laxe celluloso, molliusculo, rubenti; ascis tereti-fusoideis, subsessilibus, 50-65 × 8, aparaphysatis, apice rotundatis lumineque 2-foveolato; sporidiis oblique monostichis, octonis, sed sæpius paucioribus, elliptico-oblongis, tenuiter 1-septatis, haud v. vix constrictis, 12 × 5, hyalinis. 2420

Hab. in foliis putrescentibus Monocotyledoneæ cujusdam (Orchideæ?) in Brasilia. — Socium adest, et verisimillime metageneticum, *Verticillium compactiusculum* Sacc. var. *phyllogenum* Sacc.: cæspitulis candidis, nunc sparsis, nunc in stromate peritheciisque *Nectriæ* orientibus, modo laxis, modo compactiusculis; hyphis typi; conidiis elliptico-oblongis v. subfusoideis, 2-guttatis, 7-8 × 2, rectis, hyalinis.

20. **Nectria arundinella** Penz. et Sacc. Malpighia XI, 1897, p. 512. — Peritheciis gregariis, superficialibus, globulosis, papillatis, 150 μ. diam., levibus, glabrescentibus, succineo-roseis, demum contractis, obscurioribus; ascis tereti-fusoideis, initio apice attenuatis, filiformi- 2421

paraphysatis, octosporis, 60–70 × 8–9; sporidiis distichis v. oblique monostichis, fusoideis, rectis curvulisve, 15-16 × 4-5, subinde extra ascos 22-24 × 5, 1-septatis vix constrictis, hyalinis.

Hab. in culmis putridis, Tjibodas, ins. Java.

21. **Nectria alba** Pat. Bull. Soc. Myc. de Fr. 1895, p. 227. — Peritheciis solitariis minutis, 200-300 μ. diam., lenticularibus, demum cupuliformibus, ostiolo papillato præditis, glabris, albis; subiculo nullo; contextu minute cellulose-angulose, albo; ascis (jam elapsis); sporidiis ellipticis, lævibus, hyalinis, 20-22 × 5-6, medio septatis, leniter constrictis. 2422

Hab. in truncis putridis Chusqueæ in Æquatoria (v. Lagerheim).

22. **Nectria saccharicola** Speg. Rev. Agr. y Veter. La Plata 1896, p. 234. — Peritheciis superficialibus hinc inde 5-20 dense gregariis v. rarius subsparsis, sordide aurantiacis v. subochraceis parvulis, 150–180 μ. diam., in vivo globosis, in sicco subcollapsis v. rugosis, glabris lævibusque, ostiolo vix papillato minuto donatis, stromate destitutis, contextu carnosulo-membranaceo, parum distincto, lutescente; ascis cylindraceo-fusoideis, antice obtusis acutatis, postice breviter attenuato-pedicellatis, 60-70 × 7-8, aparaphysatis, octosporis; sporidiis ellipsoideis v. cylindraceo-ellipsoideis, utrinque acutiuscule rotundatis, 10–12 × 3½-4, primo continuis grosse 4-guttulatis, dein medio uniseptatis constrictulisque, loculis biguttulatis, hyalinis, lævibus. 2423

Hab. in culmis putridis coacervatis Sacchari officinarum, prov. Tucuman, Argentina.

23. **Nectria Epichloë** Speg.-Syll IX, p. 963. — Var. **rosea** Bres. Hedw. 1896, p. 299. — A forma typica differt tantum colore peritheciorum amœne roseo. An forte hoc ex ætate pendet? 2424

Hab. in foliis Andropogoneæ cujusdam pr. Blumenau Brasiliæ (Möller).

24. **Nectria meliolopsicola** P. Henn. Pilz. Ostafr. p. 32. — Peritheciis sparsis, minutissimis, circ. 120-160 μ. diam., nudo oculo numquam conspicuis, sessilibus, subhemisphæricis, dein cupulatis, cinnabarinis; ascis cylindraceis, obtusis, 8-sporis, 60–70 × 7–8; sporidiis oblique monostichis, oblongis, medio septatis, non constrictis, hyalinis, lævibus, 2-guttulatis 10-12 × 6-7, episporio dilute subcarnescente. 2425

Hab. in Meliolopside usambarensi in Africa trop. (Holst).

25. **Nectria episphærioides** Penz. et Sacc. Malpighia XI, 1897, p. 511. 2426

— Peritheciis parasiticis perexiguis, globoso-conoideis, 100-150 μ. diam., subgregariis, rubro-melleis; ascis aparaphysatis, tereti-clavatis, breve stipitatis, 50-60 × 9-10, octosporis; sporidiis subdistichis, elliptico-rhomboideis, 1-septatis, non v. vix constrictis, 12-15 × 7-7,5, hyalinis.

Hab. in peritheciis Diplodiæ ad ramos emortuos Acaciæ, Kota Batoe pr. Buitenzorg, ins. Java. — Ab affini *N. episphæria* differt sporidiis fere duplo majoribus.

26. **Nectria Westhoffiana** P. Henn. et Lind. Jahresber. d. Westfä- 2427
lisch. Prov. Ver. f. W. u. K. Bot. Sect. 1896-97, p. 194. — Peritheciis numerosis solitariis, initio perexiguis globosisque, dein majoribus, 300-480 μ. diam., vertice subcompressis, extus glabris, in vivo puniceis siccitate obscurioribus; ascis numerosissimis, cylindraceis apice rotundatis, vix stipitatis, 90-100 × 8-9, aparaphysatis; sporidiis octonis oblongis, utrinque rotundatis, 12-14 × 6-8, 1-septatis, hyalinis v. dilute carneis, quaque cellula grosse uniguttata.

Hab. in charta bibula in institutis botanicis Monasterii (Münster) et Berolini, Germania.

III. *Lepidonectria* Sacc.

27. **Nectria Turrææ** P. Henn. Fungi camerun. I, in Engl. Jahrb. 2428
XXII, 1895, p. 75. — Peritheciis cæspitosis, aggregatis, subglobosis, vertice depresso-umbonatis, dein subcupuliformibus, coccineis, farinoso-pruinosis, $^1/_3$-$^1/_2$ mm. diam.; ascis cylindraceo-clavatis, obtusis, sessilibus, 100-150 × 8-11; sporidiis monostichis, ovoideis v. oblongis, utrinque obtusis, medio 1-septatis haud constrictis, hyalino-subcarnescentibus, grosse 2-guttulatis, 14-20 × 7-11.

Hab. ad ramos vivos Turrææ Volkensii, Kilimandscharo, Africa (Volkens). — Status conidicus: *Fusarium Nectriæ-Turrææ* P. Henn.

28. **Nectria abnormis** P. Henn. Hedw. 1897, p. 219. — Peritheciis 2429
cæspitosis v. solitariis, subpiriformibus, 250-300 μ. diam., coccineis, pulverulentis, apice subpapillatis, dein subcupulatis, contextu membranaceo, celluloso, coccineo; ascis subovoideis v. subellipsoideis; sporidiis cylindraceo-subfusoideis, rectis v. curvulis, utrinque obtusiusculis, medio uniseptatis, paulo constrictis, nebuloso-guttulatis, 30-40 × 7-8$^1/_2$, hyalinis.

Hab. in corticibus arborum pr. Blumenau Brasiliæ (Moeller). — *Nectriæ capitatæ* Bres. affinis.

29. **Nectria radians** Penz. et Sacc. Malpighia XI, 1897, p. 510. — 2430
Peritheciis superficialibus, in soros ramoso-radiantes, 3,7 mm. diam. congestis, lateritio-rubris, globoso-conoideis, breve papillatis, $^1/_3$ mm. d., initio flavo-pruinosis; ascis fusoideis utrinque acutulis, 50-60 × 9-12, aparaphysatis (?), octosporis; sporidiis 2-3-stichis, fusoideis, 15-17 × 4-4,5, rectis, 1-septatis, non constrictis, hyalinis, intus nubilosis.

Hab. in ramis corticatis putrescentibus, ins. Java. — Soris radiantibus majusculis distincta species. Simul adsunt sporodochia minuta, pulvinata, alba, conidiis oblongis, hyalinis, continuis 9 × 2,5; sporophoris brevibus, 6 × 1-2, parallele stipatis. Forte st. conidiophorus *Nectriæ radiantis.*

30. **Nectria tjibodensis** Penz. et Sacc. Malpighia XI, 1897, p. 512. — 2431
Peritheciis gregariis, globulosis, papillatis, superficialibus, 200 μ. diam., puniceis, levibus, initio flavido-pruinulosis; ascis fusoideis, utrinque obtusulis, 40-45 × 8-9; sporidiis distichis, fusoideis, utrinque obtusulis, 16 × 5, uniseptatis, constrictis, hyalinis.

Hab. in corticibus emortuis, Tjibodas, ins. Java. — Contextus perithecii cinnabarinus, cellulosus, ostioli radiatus. — Var. **crebrior:** peritheciis latissime et crebrius gregariis, cinnabarinis; ascis 45-50 × 7; sporidiis 13-14 × 4. In corticibus emortuis, Tjibodas, ins. Java.

31. **Nectria parasitica** D. Sacc. Malpighia 1898, p. 210, tab. VII, 2432
fig. 6 (Myc. ital. cent. IV). — Peritheciis parasiticis, roseis, furfuraceis, gregariis v. hinc inde laxe congestis, sphæroideis, collabascendo concavis, albido-pruinosis, mollibus, 0,2 mm. diam.; ascis brevissime pedicellatis, subclavatis, 50-60 × 9 (immaturis), apice acutis, subfusiformibus, octosporis; sporidiis subdistichis, ellipsoideis, utrinque obtusis, 1-septatis, vix constrictis, 12-15 × 5, hyalinis.

Hab. parasitica in stromate Valsariæ insitivæ ad ramos Robiniæ in viridario Rignano, Voltabarozzo, Padova. — Adest forma conidica *Fusarium:* sporodochiis conicis, minutis roseis; conidiis fusoideis, utrinque obtusis, 3-septatis, 30-35 × 4-5, vix constrictis, roseo-hyalinis.

IV. *Hyphonectria* Sacc.

32. **Nectria hypoxantha** Penz. et Sacc. Malpighia XI, 1897, p. 513. 2433
— Peritheciis gregariis, globoso-depressis, papillatis, 390-400 μ. diam., e rubro fusco-ochraceis; bysso flava ex hyphis filiformibus

septulatis, 6-7 μ. cr., formatâ insidentibus; perithecii contextu aureo-ochraceo, ostioli radiante; ascis cylindraceis, subsessilibus, 90 × 8-9, apice obtusulis, octosporis; sporidiis oblique monostichis, oblongo-fusoideis, obtusulis, 1-septatis, 14-15 × 5-6, biguttatis, dilutissime roseolo-mellèis.

Hab. in cortice Monocotyledoneæ emortuo, Tjibodas, ins. Java. — Adest simul *Dendrodochii* species: sporodochiis pulvinatis, minutis, albis, dein roseis; basidiis furcatis, 30-40 × 2,5–3, hyalinis; conidiis obovato-oblongis, 6–8 × 3, uni-nucleatis, hyalinis. Verisimiliter status *Nectriæ* conidicus.

33. **Nectria dolichospora** Penz. et Sacc. Malpighia XI, 1897, p. 513. 2434
— Peritheciis laxe gregariis, superficialibus, globulosis, 200-250 μ. d., supra obtusatis, atro-rufis v. olivaceo-rufis, siccis obscurioribus, basi hyphis simplicibus v. furcatis, roseo-rufis 3-5 μ. cr., circumdatis, ostiolo punctiformi impresso, cellulis peristomaticis radiantibus elongatis, rubidis, perithecii contextu laxe celluloso saturatius colorato; ascis fusoideis, apice obtusulis, basi acutata subsessilibus, 70-100 × 16-18, octosporis, spurie (?) paraphysatis; sporidiis distichis, fusoideis, curvulis, utrinque obtusulis, 30-33 × 7–8, ex hyalino rufo-olivascentibus, 1-septatis, non constrictis.

Hab. in caule emortuo Elettariæ, Tjibodas, ins. Java. — Forma in spathis *Palmarum* eodem loco vix differt.

34. **Nectria chætostroma** Ell. et Macbr. Bull. Labor. Nat. Hist. 2435
Univ. Jowa IV, 1896, p. 70. — Peritheciis cæspitosis globosis $^1/_8$ mm. diam., glabris, sordide rubris dein rubescenti-brunneis, supra collabentibus, subiculo e pilis brunneis septatis curvatis, 100-200 × 3, composito cinctis, ostiolo distincte papilliformi donatis; ascis clavato-cylindraceis subsessilibus, 50-60 × 8-10, paraphysatis, octosporis; sporidiis distichis obiongis leniterque curvulis, binucleatis, 1-septatis constrictisque, pallide brunneis, obtusis, 13-16 × 5-5 $^1/_2$.

Hab. in cortice arboris ignotæ, Ometepec, Nicaragua (Smith). — Perithecia 10-40 in cæspitulum compactum 1-4 mm. diam. dense conferta.

35. **Nectria pertusa** Pat. Bull. Soc. Myc. de Fr. 1895, p. 227. — 2436
Subiculo superficiali, albo-roseolo, gossypino, tenui, ex hyphis hyalinis, ramosis, crasse tunicatis, 3-4 μ. crassis composito, plagas irregulares, 1-10 mm. latas, formante; peritheciis semi-immersis, sparsis vel dense gregariis, subglobosis, 160-200 μ. diam., albidis, villosulis, ostiolo glabro, fulvello, papillulato, dein latiuscule umbilicato pertusis, contexu fulvo-aurantiaco; ascis fusoideis, 50-70 μ.

longis, aparaphysatis; sporidiis subdistichis, hyalinis, fusoideis, medio 1-septatis, levibus, 16 × 4.

Hab. in truncis Chusqueæ in Æquatoria (v. Lagerheim). — *N. nigro-punctatæ* Speg. affinis.

36. **Nectria moschata** Glück, Hedw. 1895, p. 254. — Peritheciis 2437
minutis gregariis, mycelio dense stromatico insidentibus, rubescenti-brunneis, basi mycelio circumdatis, 202-405 × 135-256, supra pertusis, collo dense vesiculoso-papilloso donatis; ascis gracilibus elongatis, 78-101 × 5½-8½, hyalinis, tenuiter tunicatis apiceque truncatis, octosporis; sporidiis mono-vel distichis ellipticis, 9-10 × 3¾-4¼, plerumque uniseptatis, pallide rubescenti-brunneis.

Hab. e mycelio Fusarii aquæductuum culta, Halle Germaniæ. — Ejusdem *Fusarii* status ascophorus.

V. *Lasionectria* Sacc.

37. **Nectria leucotricha** Penz. et Sacc. Malpighia XI, 1897, p. 512. 2438
— Peritheciis gregariis, superficialibus, globoso-depressis, 0.4-0.5, mm. diam., melleo-rubescentibus, ostiolo punctiformi, undique sed magis inferne albo-setosis, setis cuspidatis, 200-250 × 25-35, ex hyphis coalescentibus compositis; ascis fusoideis, 50-60 × 9, initio cuspidatis, aparaphysatis, octosporis; sporidiis distichis v. oblique monostichis, oblongo-fusoideis, sæpius curvulis, utrinque obtusulis, 2-5-guttulatis, 16-20 × 4-5, demum obsolete 1-septatis, dilutissime olivaceis.

Hab. in caulibus corticatis emortuis, Tjibodas, ins. Java. — A *N. Eucalypti* C. et H. peritheciis majoribus rubidis, setis persistentibus diversa.

38. **Nectria albo-fimbriata** Penz. et Sacc. Malpighia XI, 1897, p. 513. 2439
— Peritheciis dense gregariis, globoso-depressis, superficialibus, 200-300 μ. diam., excepta areola peristomatica glabra, atra, infossa, albo-fimbriatis, fimbriis radiantibus, ex pilis flexuosis simplicibus ramosisque coalescentibus, subcontinuis, hyalino-chlorinis efformatis; ostiolo punctiformi; contextu perithecii parenchymatico, rufo-melleo, ostioli radiante, pallidiori; ascis fusoideis, breve stipitatis, initio sursum cuspidatis, 70-85 × 8-10, spurie (?) paraphysatis, octosporis; sporidiis fusoideis, distichis, utrinque acutiusculis, 1-septatis, non v. vix constrictis, 15-20 × 4,5-5, dilutissime olivaceis, longitrorsum striatulis.

Hab. in caulibus emortuis Elettariæ? Tjibodas, ins. Java. —

Habitus omnino peculiaris ob perithecia centro obscura, excavata et circumcirca adpresso et radiatim albo-fimbriata, sæpe tam approximata ut pelliculam formant.

39. **Nectria scitula** Bres. Hedw. 1896, p. 299. — Perithecis gregariis, superficialibus, nullo stromate fultis, minutis, obovatis, succineis, in sicco pezizoideo-collapsis, $^1/_4$ mm. latis, apice excepto, tomento albo indutis, contextu indistincte celluloso; ascis cylindraceis, 70-80 × 8-10; sporidiis hyalinis, subdistichis, subfusoideis, uniseptatis, 12-15 × 4-5; hyphis indusii hyalinis, apice tortuosis, $2^1/_2$-3 μ. latis. 2440

Hab. ad folia pr. Blumenau Brasiliæ (Möller). — In statu sicco *Lachnellam papillarem* (Bull.) Karst. optime simulat.

40. **Nectria Musæ** Pat. Journ. de Bot. 1897, p. 369. — Perithecis minutis, 230 μ. diam., conferte gregariis, sed stromate nullo unitis, globosis, dein depressis cupuliformibusque, miniatis, pilis albidis, 60 μ. circiter longis sparsis vel sæpius penicillatim conjunctis ac squamiformibus obsitis; ascis in stipitem attenuatis, 50-60 × 10-12, octosporis, aparaphysatis; sporidiis hyalinis, levibus, ovoideis, uniseptatis, 13-16 × 5. 2441

Hab. in culmis et radicibus putridis Musæ in Tonkin.

41. **Nectria fuscostoma** A. L. Smith, Journ. of Bot. 1895, p. 342. — Peritheciis gregariis, confertis, luteo-flavis, pilosis, subglobosis, 280 × 330, apice fusco-rostratis; ascis clavatis, 80 × 10, paraphysibus filiformibus obvallatis; sporidiis 1-septatis, ellipticis, hyalinis, leviter constrictis, 18 × 5. 2442

Hab. in vaginis Bambusarum in Africa orient. (Elliot.).

VI. *Cryphonectria* Sacc.

42. **Nectria xanthostroma** Penz. et Sacc. Malpighia XI, 1897, p. 514. — Peritheciis gregariis v. hinc inde in soros minutos confertis, globoso-conicis, obtuse papillatis, 200-250 μ. d., flavo-aurantiacis, crustula stromatica 5-10 mm. diam., carnosulo-gelatinosa adnata, uda sordide flava, sicca obscuriore semiimmersis; ascis cylindraceis, fasciculatis, breve stipitatis, apice subtruncatis, paraphysibus longioribus guttulatis obvallatis, octosporis, 55-60 × 5; sporidiis oblique monostichis, ellipsoideis, utrinque obtusis, 8-9 × 3-4, uniseptatis, vix constrictis, biguttatis, hyalinis. 2443

Hab. in ramis corticatis putrescentibus, Tjibodas, ins. Java. — Ob crustam stromaticam ad *Hypocream* nutat, ceterum species

prædistincta. Perithecia sicca, nunc aurea manent, nunc atropurpurea fiunt!

LISEA Sacc. — Syll. II, p. 517, XI, p. 360.

1. **Lisea violacea** (A. L. Smith) Sacc. Hedw. 1896, p. XXXIII, 2444
Gibberella violacea A. L. Smith Journ. of Bot. 1895, p. 342. — Peritheciis cæspitoso-stromaticis, subglobosis, 180-200 μ., poro apicali instructis, violaceis; ascis clavatis, octosporis, 60 × 8; sporidiis hyalinis, 1-septatis, 10 × 4; conidiis septatis, fuscis, illis *Macrosporii* similibus.

Hab. ad cortices in Africa orientali.

2. **Lisea inæqualis** Hazsl. Math. es term. Közlem. XXV, 2 Buda- 2445
pest 1892, p. 6 — Differt a *Gibberellis* et a *Lisiella Syringæ* sporidiis oblongo-ovatis, crassitie ter longioribus, inæqualiter biloculatibus.

Hab. in ramis Lycii barbari in Hungaria.

3. **Lisea australis** Speg. – Sacc. Syll. II, p. 518. — Var. **Sacchari** 2446
Speg. Rev. Agr. y Veter. La Plata, 1896, p. 236. — A typo recedit: peritheciis omnino superficialibus, contextu tenuiore grosse paronchymatico-celluloso; sporidiis nonnihil majoribus, 14 × 5, 1-5-sentato-constrictis, loculis subæquilongis supero crassiore obtusioreque, primo hyalinis strato mucoso tenuissimo involutis, dein fumosis, nudis, levibus.

Hab. in culmis dejectis putridis Sacchari officinarum, prov. Tucuman, Argentina.

TRELEASIA Speg. Rev. Agr. y Veter. La Plata, 1896, p. 235 (Etym. a cl. botanico americano Trelease). — Perithecia coacervata, minuta, longissime rostrata, hyalina, contextu hypocreaceo. Asci ellipsoidei, octospori. Sporidia fusoideo-elongata, 1-septata, hyalina.

1. **Treleasia Sacchari** Speg. l. c. — Acervulis superficialibus, sæpius 2447
sparsis, 0,5-2 mm. diam., e convexulo difformibus, gossypinulo-spinulosis, candidis; peritheciis candidis, minutis, dense 5-20-conglobatis, sæpius nodulo stromatico parenchymatico hyalino pallescente insidentibus, primo mycelio araneoso candido ex hyphis hyalinis (2 μ. crass.) septulatis levibus constituto tectis, dein nudis ovatis, 80 × 60, ostiolo prælongo cylindraceo, 200-300 × 10-20, concolore apice acutiusculo sæpeque fimbriatulo coronatis, tenuimembranaceis, contextu ubique prosenchymatico septulato hyalino (cellulis 3 μ. crass.) donato; ascis ellipsoideis, apice obtuse apicu-

latis crassiusculeque tunicatis, 65-80 × 20-25, postice brevissime cuneato-pedicellatis, aparaphysatis, octosporis; sporidiis lineari-fusiformibus, utrinque acute attenuatis, rectis, 50-60 × 7-8, medio 1-septulatis non constrictis, hyalinis, levibus, eguttulatis.

Hab. ad folia gemmarum adhuc convoluta, sed subtabescentia Sacchari officinarum, prov. Tucuman, Argentina.

HYPOMYCES Fr. — Syll. II, p. 466, IX p. 954, XI, p. 356.

1. **Hypomyces ? epimyces** (Otth) Sacc. Hedw. 1896, p. XXXII, *Sphæria* (Obturata?) *epimyces* Otth Bern. Mittheil. 1865, p. 166. — Peritheciis minutis, subgregariis, globosis, nigris, emergentibus, demum seminudis v. subsuperficialibus, ostiolo papillato; ascis cylindraceis, octosporis; sporidiis monostichis, ellipsoideo-rotundatis, fuscis, continuis, 10 × 8. 2448

Hab. in Corticio comedente ad ramos Quercus pr. Steffisburg, Helvetia. — Adest simul *Sphæronæma* (Zythia) *epimyces* (Fr.) Berk., statum pycnidicum sistens, teste Otth.

2. **Hypomyces Moellerianus** Bres. Hedw. 1896, p. 299. — Stromate late effuso, spongioso-gossypino, 1 $^1/_2$-2 mm. crasso, albido-stramineo; peritheciis subsuperficialibus, basi tantum stromati nidulantibus, albis, obovatis, fusco-papillatis, 200-250 μ.; ascis cylindraceo-subfusoideis, 80-90 × 5-6; sporidiis subdistichis, elongatis, utrinque attenuatis, uniseptatis, interdum 3-septatis, 16 × 4. 2449

Hab. in matrice non indicata pr. Blumenau Brasiliæ (Möller).

HYPOCREA Fr. — Syll. II, p. 520, IX, p. 972, XI, p. 361.

I. *Eu-Hypocrea* Sacc.

1. **Hypocrea fulva** Penz. et Sacc. Malpighia XI, 1897, p. 520. — Stromatibus subsparsis, basi plana superficialibus, pulvinato-depressis, ambitu orbiculari-sinuosis, fulvis, minute colliculosis, carnosulis, 1-3 mm. diam.; peritheciis immersis, globulosis, 180-200 μ. d., ostiolo papillato prominulo; ascis cylindraceis, deorsum acutatis, apice rotundatis, 120-140 × 6-7, octosporis; sporidiis didymis, ex hyalino dilute olivaceis, articulis inæqualibus, 7-8 × 5 v. 5-6 μ. d., dein secedentibus. 2450

Hab. in ramis emortuis decorticatis v. corticatis, Tjibodas, ins. Java. — Forma et colore amœne fulvo stromatis dignoscenda species.

2. **Hypocrea alba** A. L. Smith. Journ. of Bot. 1895, p. 343. — Sub- 2451
libera, rotundata, hemisphærica vel culvinata alba; peritheciis minutis, globosis, immersis, flavis, 140 μ. diam., ostiolis punctiformibus, fuscis; ascis cylindraceis, 40 × 4 ½; sporidiis monostichis, ayalinis, e duabus cellulis æqualibus compositis, cellulis singulis globosis, 3 ½–4 μ. diam.

Hab. ad ramos siccos p. Masai Afr. austr.

3. **Hypocrea atro-fusca** P. Henn. Hedw. 1897, p. 220. — Stroma- 2452
tibus carnosis, gregariis, pulvinatis, irregulariter orbicularibus, sæpe confluentibus, ½–1 cm diametro, ostiolis papillatis, prominulis, atro-fuscis; peritheciis immersis; ascis cylindraceis, stipitatis, 110-130 × 6-8; sporidiorum articulis globosis vel ellipsoideis, 1 guttulatis, hyalinis, 6-7 × 5-7.

Hab. in truncis pr. Blumenau Brasiliæ (Möller). — *Hypocreis rufæ* et *vinosæ* valde affinis, sed stromate, ascis longioribus et sporidiis diversa.

4. **Hypocrea castanea** P. Henn. in Engl. Jahrb. XXIII, 1896, 2453
p. 285. — Stromatibus subgregariis, superficialibus in mycelio sub membranaceo, effuso, atro-fusco, pulvinatis vel subhemisphæricis, centro depresso, castaneis, ca. 4-5 mm. diam., rugulosis, ostiolis granulato-punctiformibus; ascis cylindraceo filiformibus, basi fasciculato-conjunctis, apice obtusis, 45-60 × 3 ½–4 ½, octosporis, monostichis; articulis sporidiorum æqualibus, subglobosis, hyalinis, 3-3 ½.

Hab. in ligno putrido in ins. Upolu ins Samoëns (Reinecke).

5. **Hypocrea succinea** Bres. Hedw. 1896, p 300 — Stromatibus 2454
gregariis, orbicularibus v. lenticularibus, carnoso-ceraceis, pallide succineis, intus albidis, 1-2 mm. diam., superficie rugulosa; peritheciis immersis, paucis, prominulis; ascis cylindraceis, 110–120 × 5-5 ½; sporidiorum articulis subgloboso-cuboideis, 5-6 ½ × 4-5.

Hab. ad corticem arborum pr. Blumenau Brasiliæ (Möller).

6. **Hypocrea gelatinosa** (Tode) Fr. — Syll. II, p. 524. — ***H. oligo-** 2455
theca Penz. et Sacc. Malpighia XI, 1897, p. 519. — Stromatibus minoribus, 1 mm circ. inæqualiter globulosis, flavidis, siccis rufulis, ob perithecia prominula mammillosis; ascis cylindraceis, 80 × 6; sporidiis inæqualiter didymis, subhyaliuis, rugulosis, locul. sup. subrotundo 6–7 μ. diam., inf. 7-8 ×

Hab. in culmis putridis, Tjibodas ins. Java.

7. **Hypocrea Sclerodermatis** Penz. et Sacc. Malpighia XI, 1897, 2456
p. 519. — Stromatibus solitariis v. confortis, superficialibus, convexo-pulvinatis, 2 mm. diam. v. confluendo 6 mm. diam., glabriu-

sculis, initio ochraceis, demum obscurioribus, superficie colliculosis, intus carnosis, albidis; ascis cylindraceis, brevissime stipitatis, apice rotundatis, aparaphysatis, octosporis, 75–100 × 3,5–4; sporidiis monostichis didymis, loculis inæqualibus, 3,5 μ. d., olivaceis, sup. globoso. inf. subovato.

Hab. parasitica in peridiis Sclerodermatis, Tjibodas, ins. Java. — Affinis *H. pulvinatæ*, a qua differt sporidiis coloratis, et *H. epimyceti*, a qua recedit stromate basi non coarctato.

3. **Hypocrea pulvinata** Fckl.-Sacc. Syll. II, p. 521. — Var. **serialis** 2457
Hazsl. Math. es term. Közlem. XXV, 2, Budapest, 1892, p. 20, tab. II, fig. 5. — Stromatibus associatis, plano-pulvinatis, in contactu non confluentibus, sed margines contingentes elevantibus, intus flavescentibus, superne virescentibus, demum viridi-fulvis, pulverulentis; peritheciis ovalibus stromati immersis; paraphysibus nullis; ascis cylindricis, 8-sporis; sporidiis mox in articulos secundarios globosos uniseriales 3-4 μ crassos secedentibus.

Hab. in superficie Thelephoræ ochraceæ in **Hungaria**.

II. *Homalocrea* Sacc.

9. **Hypocrea discolor** Penz. et Sacc. Malpighia XI, 1897, p. 520. — 2458
Stromatibus sparsis, effusis, membranaceo-adnatis, 4-5 mm. diam., margine glabris, citrino-ochroleucis, ob perithecia translucida atro-purpureo-punctatis; peritheciis globulosis, minutis, rubidis, centro pertusis; ascis cylindraceis, brevissime stipitatis, apice rotundatis, aparaphysatis, 60–70 × 5–6; sporidiis didymis, articulis globoso-cuboideis, subæqualibus, 4–5 μ. d., dilute chlorinis.

Hab. in corticibus emortuis, Tjibodas ins. Java. — Affinis *H. citrinæ*, a qua differt peritheciis translucide atro-purpureis, minus crebris etc.

10. **Hypocrea aurantio-cervina** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 2459
p. 458. — Stromatibus effusis, orbicularibus, 1-2 cm. diam., tenuibus (1 mm.), aurantiacis, siccis cervinis, margine adpressis; peritheciis oblongo-ellipticis, 300 × 200, nigris, confertis, stromate immersis; ostiolis minutis, sub lente prominulis; ascis tenuibus, p. sp. 50-55 × 5-6, stipite gracili; sporidiis monostichis, subnavicularibus, brunneis, obtusis, 2-nucleatis, 7-9 × 3-3 $^1/_2$, plerumque excedentibus.

Hab. in cortice, Louisiana Amer. bor. (Langlois).

11 **Hypocrea flavidula** P. Henn. Hedw. 1897, p. 221. — Stromatibus 2460
late effusis, carnosis, planis ambitu nudis, pallidis vel subflavis;

ostiolis prominulis, fuscis; peritheciis immersis, subglobosis; ascis elongato-cylindraceis, 5-7 μ. crassis, apice obtuso-rotundatis; articulis sporidiorum globosis vel ellipticis, $5\,^1/_2$-7×5-$6\,^1/_2$, hyalinis.

Hab. in ligno decorticato pr. Blumenau Brasiliæ (Möller).

12. **Hypocrea flava** P. Henn. Hedw. 1897, p. 220. — Stromatibus late effusis tenui-membranaceis, ambitu byssino, albido, flavis, dein olivaceo-fuscis, superficie rugulosis; peritheciis immersis; ascis elongato-cylindraceis, 75-100 × 4-5; articulis sporidiorum globosis v. subglobosis, uniguttulatis, 4-5 μ., hyalino-fuscidulis. 2461

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Möller).

13. **Hypocrea rhizinæformis** Pat. Bull. Soc. Myc. de France 1895, p. 88, tab. XI, fig. 5. — Stromatibus dimidiatis, 5-8 cm. longis, 4 cm. latis, ochraceis, convexis, centro crasso (1 cm.), margine tenuiore (2 mm.), effusis, sinuosis, plus minus lobulatis, subtus planis v. concavis, plicatis, pallide ochraceis; peritheciis ovoideis, 260-300 μ. altis, confertis, totam paginam superiorem occupantibus; ascis cylindraceis, 75 × 5-6, octosporis; articulis sporidiorum 16, hyalinis, ovoideis, 5 × 3. 2462

Hab. ad truncos in regione congoana gallica (Dybowski).

14. **Hypocrea membranacea** P. Henn. Hedw. 1897, p. 221. — Stromatibus tenui-membranaceis, effusis, pallide flavis vel sulphureis, margine pallidis, 1-2 cm. diam.; ascis cylindraceis apice obtuso-rotundatis, stipitatis, 45-55 × $4\,^1/_2$-5; articulis sporidiorum globosis $3\,^1/_2$-5 μ. episporio flavescenti. 2463

Hab. in ligno corticato pr. Blumenau Brasiliæ (Möller).

15. **Hypocrea glaucescens** Bres. Hedw. 1896, p. 300. — Stromate late effuso, carnosulo-membranaceo, 1 mm. crasso, alutaceo-pallido, superficie glaucescente vel chlorina; peritheciis dense stipatis, immersis, ostiolis papillatis prominulis; ascis cylindraceis, 100-110 × 6-7; articulis sporidiorum subgloboso-cuboideis, hyalinis, 5-6 × 4-5. 2464

Hab. in matrice non indicata pr Blumenau Brasiliæ (Möller).

III. *Podocrea* Sacc.

16. **Hypocrea Cornu-damæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 198, tab. XIII, fig. 1. — Magna, 5-10 cm. alta, glabra, ochraceo-aurantiaca; stromatibus solitariis vel cæspitosis, erectis, compressis, crassiusculis, superne ad instar cornu damæ expansis corniculatisque, inferne in stipitem sensim attenuatis; peritheciis immersis, globosis, minutis, ostiolis 80-120 μ. diam., vix prominulis; ascis 2465

cylindraceis, 8-sporis, 50-65 × 3-4, aparaphysatis; sporidiis hyalinis, bicellularibus, articulis globosis, 1-guttulatis, 3 μ. diam.; contextu albido, carnoso-coriaceo.

Hab. in lignis putridis, Thibet orient.

IV. *Clintoniella* Sacc.

17. **Hypocrea longicollis** Penz. et Sacc. Malpighia XI, 1897, p. 520. — 2466
Stromatibus subsparsis superficialibus, pulvinatis, carnosulis, echinatis, pallidis (in alcohole rubescentibus), 4-5 mm. diam.; perithecciis globulosis, immersis, 550-650 μ. diam., in collum exserto-rostellatum, 600-1200 × 100-120, productis; ascis cylindraceis, fugacibus, aparaphysatis, octosporis; sporidiis oblique monostichis, ellipsoideis, uniseptatis, vix constrictis, flavidis, 6,5-7 × 3,5-4, loculis non secedentibus.

Hab. ad ramos putres, Tjibodas (?), ins. Java. — Affinis (ex icone Persoonii) *H. armatæ*, cujus tamen fructificatio omnino ignota est. Ob sporidia ad subg. *Clintoniella*, ob ostiola vero ad *Solenostoma* spectaret.

18. **Hypocrea Euphorbiæ** Pat. Bull. Soc. Myc. de Fr. 1895, p. 228. 2467
— Stromate pulvinato, elongato, per rimam erumpente, $^1/_2$ cm. longo, 4-5 mm. lato, 2 mm. crasso, sordide rufo, contextu carnoso-coriaceo, anguloso-celluloso; peritheciis ovoideis, $^1/_4$ mm. altis, semi-exsertis, confertis; ascis (jam elapsis); sporidiis ellipsoideis, hyalinis, nectriaceis, medio 1-septatis constrictisque, 13-15 × 3-4, non dilabentibus.

Hab. in truncis emortuis Euphorbiæ in Æquatoria (v. Lagerheim).

VALSONECTRIA Speg. — Syll. II, p. 519.

1. **Valsonectria andina** Pat. Bull. Soc. Myc. de Fr. 1895, p. 227. — 2468
Stromatibus carnosis, aurantiacis, minutis, vix 1 mm. longis, ellipticis, erumpentibus, parum prominulis, primo epidermide tectis, superne truncatis, ex ostiolis vix erectis minutissime punctatis; peritheciis 5-6, monostiche stipatis membranaceis, brunneolis, subglobosis, in ostiola conica, infra brunnea, supra aurantiaca, integra elongatis; ascis 8-sporis, 60-75 × 10-15, aparaphysatis; sporidiis hyalinis, mono-vel distichis, ellipticis, levibus, 1-septatis, leniter constrictis, 15 × 6, non guttulatis.

Hab. in ramis emortuis Coriariæ thymifoliæ in Æquatoria v. Lagerheim).

CORALLOMYCES B. et C. — Syll. II. p. 519.

1. **Corallomyces elegans** Berk. et Cke Sacc Syll. II, p. 519. — Var. **camerunensis** P. Henn. Fungi camerun I, in Engl. Jahrb. XXII, 1895. p. 76. — Stromatibus fruticuloso-ramulosis, atrovinosis; peritheciis plerumque aggregatis ovoideis, apice mammiformibus, minute rugulosis, circ. 0,7 mm. longis, 0,4 mm. latis; ascis cylindraceis, stipitatis, apice obtusis, paraphysatis, octosporis, 100-130 × 8-10; sporidiis monostichis oblongis v. ellipsoideis, uniseptatis, medio constrictis, carneo-fuscis, 14-20 × 7-9; parapnysibus filiformibus, non ramosis, 3-4 μ. crassis, hyalinis. 2469

Hab. in lignis putrescentibus. Kamerun (Jungner).

2. **Corallomyces Heinsenii** P. Henn. Engl. Jahrb. XXIII, p. 538, tab. XIV, fig. 2 a-e. — Stromatibus superficialibus, fruticulosis, repentibus v. erectis, ramosis, coccineis; peritheciis dense gregariis in capitulis subglobosis confluentibusque dispositis, sanguineis, ovoideis, levibus, apice papillatis; ascis 8-sporis, cylindraceis subclavatis, apice rotundatis, stipitatis p. sporif. 95-115 × 6-8½, pedicello plus minus elongato, usque ad 90 μ. longo; sporidiis oblique monostichis, oblongo-ellipsoideis, utrinque rotundatis, medio 1-septatis paulo constrictis, hyalinis, 14-17 × 6-7; stromatibus conidiophoris repentibus, ramis erectis, cylindraceis coccineis, circ. 1½ mm. longis, apice capitulatis subglobosis, ceraceis, albo-flavescentibus; conidiis ellipsoideis v. oblongo-ovoideis, continuis, hyalinis, 14-18 × 3-11. 2470

Hab. in cortice in Usambara, Afr. or. (Heinsen).

Sect. 8. Phæodidymæ.

LETENDRÆA Sacc. — Syll. II, p. 538.

1. **Letendræa atrata** Penz. et Sacc. Malpighia XI, 1897, p. 514. — Peritheciis late et densiuscule gregariis, in matrice atrata superficialibus, globoso-depressis, 400 μ. diam., e purpureo nigricantibus, glabris, levibus, areola peristomatica orbiculari rubente, ostiolo punctiformi; perithecii contextu celluloso, atro-rufo, ostioli radianto rufulo; ascis fusoideo-clavatis breve stipitatis, 90-95 × 9, paraphysatis, octosporis; sporidiis distichis, fusoideis, constricto-1-septatis, 2471

20–22 × 6, utrinque obtusulis. initio 4–guttatis, subhyalinis, dein olivaceo-fuscis.

Hab. in lignis putrescentibus, Tjibodas, ins. Java.

2 **Letendræa luteola** Ell. et Ev. Proc. Acad. Philad. 1895, p. 415. 2472
— Peritheciis gregariis, superficialibus, crasse membranaceo-carnosis $^1/_3$-$^1/_2$ mm. diam., apice luteo-farinosis ibique plus minusve collabentibus, ostiolo breviter cylindraceo firmo donatis; ascis cylindraceis, 75-85 × 5-6, deorsum leniter attenuatis, indistincte paraphysatis, 6-8-sporis; sporidiis monostichis oblongis, utrinque leniter attenuatis sed obtusis, sæpe subinæquilateralibus, uniseptatis non constrictis, pallide brunneis, 8-11 × 3-3 $^1/_2$.

Hab. in ligno putrescente, Ohio Amer. bor. (Morgan)

Sect. 4. Hyalophragmiæ.

CALONECTRIA De Not. — Syll. II. p. 540, IX, p. 982, XI, p. 363.

I. *Eu-Calonectria* Sacc.

1. **Calonectria aurantiella** Penz. et Sacc. Malpighia XI, 1897, p. 515. 2473
— Peritheciis laxe gregariis, globoso-depressis, carnoso-lentis, superficialibus, 180-200 μ. diam., flavo-aurantiis, mox umbilicatis, ostiolo rotundo vix papillato; ascis tereti-clavatis, filiformi-paraphysatis, breve stipitatis, apice obtusulis, 90-100 × 14-15, octosporis; sporidiis subtristichis, fusoideis utrinque acutis, 50 × 4-5, curvulis, 8-10-septulatis, non constrictis. hyalinis.

Hab. ad ligna putrida superficie obscurata, Tjibodas, ins. Java. — Ab affinibus *C. Plowrightiana, C. effugiente* etc. differt peritheciis depresso-umbilicatis etc.

2. **Calonectria callorioides** Penz. et Sacc. Malpighia XI, 1897, p. 515. 2574
— Peritheciis hinc inde gregariis, superficialibus, globoso-lentiformibus, albo-flavidis, diaphanis (callorioideis), 200 μ. diam., dein leviter excavatis, ostiolo indistincto; contextu tenui, parenchymatico, stramineo; ascis tereti-clavatis, breve stipitatis, apice rotundatis, 125-145 × 10-12, 8-sporis; sporidiis distichis, fusoideis, curvulis, 30 × 4-5, utrinque obtusiusculo attenuatis, 7-8-nucleato-septulatis, hyalinis.

Hab. in culmis v. caulibus Monocotyledonum superficie atratis, in Horto bot. Bogoriensi, ins. Java, socia *Chætosphæria.* — Habitus *Orbiliæ* v. *Calloriæ.*

3. **Calonectria effugiens** Penz. et Sacc. Malpighia XI, 1897, p 515. 2475
— Peritheciis hinc inde gregariis, superficialibus, globulosis, papillatis, $^1/_8$ mm. diam., albis, dein sordide rubescentibus; ascis clavatis, crassiuscule stipitatis, apice rotundatis, 90-100 × 14, paraphysatis, octosporis; sporidiis distichis, fusoideis, utrinque attenuatis, 45-50 × 5, curvulis, tenuiter 7-8-septatis et cuboideo-nucleatis, non constrictis, hyalinis.

Hab. in caulibus Monocotyledonum emortuis in Horto Bogoriensi, ins. Java. — Asci demum ex ostiolo in massulam albam exsilientes.

4. **Calonectria verrucosa** Pat. Bull. Soc. Myc. de Fr. 1895, p. 228. 2476
— Subiculo mucedineo, albo, parvissimo vel nullo; peritheciis solitariis vel laxissime approximatis, globosis, fusco-succineis, $^1/_3$ mm. diam., undique verrucis sparsis pyramidatis, cellulosis albis ornatis, contextu melleo, grosse celluloso; ascis aparaphysatis; sporidiis fusiformibus, hyalinis vel dilutissime melleis, transverse 7-septatis, utrinque acutis, rectis vel flexuosis, 50-60 × 8-10.

Hab. in truncis putridis Chusqueæ in Æquatoria (v. Lagerheim).

II. *Chiajæa* Sacc. Hedw. 1896, p. XXXIII.

5. **Calonectria Hippocastani** (Otth) Sacc. Hedw. 1896, p. XXXIII, 2477
Nectria (Gibbera) *Hippocastani* Otth, Bern. Mittheil. 1868, p. 57.
— Stromate carnoso pulvinato e dilute miniato fuscescente, sæpius in peridermii rimis confluente, peritheciis dense obsito; peritheciis minutis, globosis, membranaceis, fusco-brunneis, demum collapsis; ascis cylindricis, octosporis; sporidiis monostichis subimbricatis, oblongis, obtusis, 4-locularibus et torulosis, 16-18 × 5, brunneis; paraphysibus filiformibus.

Hab. in ramis Æsculi Hippocastani in Helvetia. — Subgenus, quod a cl. phycologo neapolitano Delle Chiaje vocatur, dignoscitur sporidiis 3-septatis, brunneis.

STILBONECTRIA Karst. — Syll. IX, p. 986.

1. **Stilbonectria tonquinensis** Pat. Journ. de Bot. 1897, p. 369. — 2478
Peritheciis globosis, 110-120 μ. diam., leniter depressis, apice poro pertusis, albis, villosis, sparsis vel in mycelio superficiali velutino albo, maculas orbiculares 3-4 mm. latas formante gregariis; sporidiis hyalinis, fusoideis, rectis v. vix curvulis, utrinque attenuatis, transverse triseptatis, ad septa non constrictis, 17-20 × 3-5.

Hab. in cortice vetusto in Tonkin. — Fungi conidiophori sparsi, cylindracei, 350 μ. circiter alti, apice in capitulum 150 μ. crassum rubrum dilatati; conidiis hyalinis, ovoideis, levibus, continuis, 6 × 3.

GIBBERELLA Sacc. — Syll. II, p. 552, IX, p. 988, XI, p. 363.

1. **Gibberella cyanospora** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 159. — Peritheciis sparsis, superficialibus, globosis, sæpe vertice complanatis, 500 μ., amethystino-cœruleis; ascis 8-sporis, claviformibus, subsessilibus, 75–90 × 14 ½, membrana cyanea; paraphysibus flexuosis, ramulosis, cyaneis; sporidiis cylindraceis, utrinque attenuatis, in articulos multos divisis, vivide cyaneis, 35–45 × 2–3. 2479

Hab. in foliis ramulisque Myrtaceæ cujusdam, Costa-Rica.

2. **Gibberella Lagerheimii** Rehm, Hedw. 1895, p. (163). — Peritheciis epiphyllis, plerumque 3-8 acervatim gregariis, rarius singularibus in foliorum maculis fuscidulis 1-3 mm. lat. insidentibus, piriformibus, demum apice cupuliformiter collapsis, vix poro perspicuo pertusis, atro-fuscis, mollibus, parenchymatice e cellulis magnis, fusco-cœruleis contextis, 0,3-0,4 mm. diam.; ascis clavatis, crassis, sessilibus, 90-120 × 21-24, octosporis; sporidiis ellipticis, transverse 3–septatis, dilute flavidulis, 24–30 × 9–10, distichis; paraphysibus longis, filiformibus septatis, 3 μ. crassis. 2480

Hab. ad folia viva Tessariæ cujusdam, prov. de Pichincha Æquatoriæ (Lagerheim).

3. **Gibberella effusa** Rehm, Hedw. 1896, p. (32). — Peritheciis in ligni superficie longe lateque denigrata dense gregariis, sessilibus, subconoideis, poro inconspicue pertusis, glabris in sicco atris, 150-200 μ. diam., contextu parenchymatico chalybeo-cœruleo, molli; ascis clavatis apice rotundatis, teneris, 70 × 15, octosporis; sporidiis ellipticis v. oblongo-conoideis, rectis, hyalinis, 4-cellularibus, ad septa haud constrictis, distichis, 12-15 × 5-6; paraphysibus articulatis tenuissimis longissimisque, hyalinis, 8 μ. crassis. 2481

Hab. ad lignum cariosum in horto botan. Berol. Germaniæ (Sydow).

4. **Gibberella Sacchari** Speg. Rev. Agr. y Veter. La Plata 1896, p. 237. — Peritheciis superficialibus sparsis v. hinc inde gregariis, globosis, levibus, in sicco non collabascentibus sed rugulosis, parvulis, 150–180 μ. diam., ostiolo non papillato lato (25 μ. diam.) donatis, contextu rigidulo parenchymatico inferne fusco, superne amœne cœruleo, basi in juventute hyphis nonnullis subhyalinis 2482

cinctis; ascis fusoideis antice acutiusculis, postice attenuato-pedicellatis, 40–55 × 7–9, aparaphysatis, octosporis; sporidiis fusoideis e curvulo inæquilateralibus, utrinque acutis, 16 × 3 1/2–4, triseptatis, non constrictis, hyalinis.

Hab. ad folia nec non in culmis a frigore hiemali enecatis Sacchari officinarum, prov. Tucuman, Argentina.

BROOMELLA Sacc. — Syll. II, p. 557, IX, p. 988, XI, p. 364.

1. **Broomella Lagerheimii** Pat. Bull. Soc. Myc. de Fr. 1895, p. 229. 2483
— Maculis amphigenis, orbicularibus v. elongatis, flavidulis, 1–2 mm. diam.; stromatibus epiphyllis superficialibus, sparsis, orbicularibus, 1/2–1 mm. diam., pulvinato-applanatis, matrici arcte adnatis, superne glabris, inferne piloso-furfuraceis, pilis hyalinis, cylindraceis, septatis, rigidis sparsis, 300 × 6-9, extus intusque nigro-rubris; peritheciis stromate immersis, dein sem -exsertis v. subliberis, globosis, 1/6 mm. diam., dense stipatis, carnosulis, contextu grosse celluloso, brunneo-rubro, non vel vix ostiolatis; ascis 8-sporis, 160 × 10; sporidiis hyalinis v. pallidissime fuscis, ellipticis, utrinque obtusis, 3-septatis, non constrictis, 23-30 × 6-7

Hab. in foliis Bambusaceæ «moya» dictæ in Æquatoria (v. Lagerheim).

Sect. 5. Hyalodictyæ.

THYRONECTRIA Sacc. — Syll. II, p. 561, XI, p. 364.

1. **Thyronectria sambucina** Ell. et Ev. Bull. Torr. Bot Cl. 1897, 2484
p. 458. — Perithecis 6-12 in quoque stromate, globosis, circiter 1/3 mm. diam., brunneis, coriaceis, ostiolis minutis, papilliformibus, inconspicuis, in discum applanatum v. subconcavum, atro-brunneum, epidermidem elevantem mox erumpentem unitis; ascis cylindraceis, p. sp. 130–150 × 18–20, breve stipitatis, 8-sporis, paraphysibus numerosis evanidis filiformibus obvallatis; sporidiis monostichis, oblongo-ellipticis, 7-septatis, muriformibusque, medio leniter constrictis, stramineis, 20–25 × 12–14.

Hab. in ramis Sambuci, Colorado Amer. bor.

Sect. 6. Scolecosporæ.

OPHIONECTRIA Sacc. — Syll. II. p. 563, IX, p. 994, XI. p. 365.

1. **Ophionectria trichospora** (B. et Br.) Sacc. Syll. II, p. 563. — 2485
var. **rufula** Penz. et Sacc. Malpighia XI, 1897, p. 516. — Peritheciis rufescentibus, obscurioribus; ascis 200-220 × 15-16; sporidiis 130 × 6.

Hab. in spatha putri Palmarum in Horto Bogoriensi, ins. Java. — Species *Berkeleyana* differret sporidiis longioribus, sed forte mensura exhibita non fida.

2. **Ophionectria conica** Penz. et Sacc. Malpighia XI, 1897, p. 516. 2486
— Peritheciis hinc inde gregariis, superficialibus et mox sordentibus, globoso-conicis, acutis, 0,5 mm. diam., fusco-nigricantibus; contextu grosse parenchymatico, rufo-fuligineo, cellulis 15-25 μ. diam.; ascis cylindraceis, breve stipitatis, apice truncatis initioque acutato-truncatis, 150-170 × 15-17, paraphysibus tortuosis obvallatis, octosporis; sporidiis subtristichis, bacillaribus, sæpe curvis, utrinque rotundatis, 8-12-septatis, multiguttulatis, 90-115 × 5-5.5, ex hyalino dilutissime rufo-flavidis.

Hab. in fragmentis ligneis putridis, Tjibodas, ins. Java. — Subaffinis *O. coccicolæ* (E. et Ev.) B. et V., sed differt forma colore et glabritie peritheciorum etc.

3. **Ophionectria cinnabarina** P. Henn. in litt., *Calonectria* P. Henn. 2487
Hedw. 1897, p. 220. — Peritheciis membranaceo-subceraceis, superficialibus, gregariis ambitu late byssino-membranaceis, pallidis (e filis ramosis, septatis, flavis v. roseis, 4-14 μ. crassis), subglobosis, sessilibus, cinnabarinis, minute granulosis, 300-360 μ. diam.; ascis clavatis, octosporis, rectis v. curvulis, plus minusve stipitatis, apice obtusis, 100-200 × 20-30, pedicello hyalino, 30-60 × 6-8; sporidiis longitudinaliter parallelis, fusoideis, utrinque apiculatis v. subobtusis, rectis v. sigmoideis, 80-180 × 6-8, hyalinis, multiseptatis (-17), septis haud constrictis, articulis rectangularibus, ca. 10-12 × 6-8.

Hab. in corticibus arborum pr. Blumenau Brasiliæ (Moeller). 2488

4. **Ophionectria** *(Ophiostilbe)* **Trichiæ** Penz. et Sacc. Malpighia XI, 1897, p. 516. — Peritheciis parasiticis, superficialibus, globoso-conicis, albidis, villosulis, 130-140 μ. diam., ostiolo longiusculo papillato; ascis cylindraceis, breve stipitatis, apice rotundatis, apara-

physatis, 70-80 × 4-4,5, octosporis; sporidiis filiformibus, tenuiter pluri-septatis, 60-65 × 0,7-1, hyalinis.

Hab. in peridiis Trichiæ verrucosæ Berk., Tjibodas, ins. Java, socio st. conidiophoro: *Stilbo tomentoso* Schrad. v. affini: stipite cylindraceo, exquisite papilloso asperulo, 270-300 × 30-35, albido; capitulo subrotundo, 60-65 μ. diam.; conidiis non visis. Ob Stilbi consortium species hæc verisimiliter novum genus sistit *(Ophiostilbe)*, quod præ *Ophionectria* stat ut *Sphærostilbe* præ *Nectria*.

TUBEUFIA Penz. et Sacc. Malpighia XI, 1897, p. 517. (Etym. a cl. doct. lib. Bar. C. Tubeuf, professore monacensi, nunc berolinensi, de studio fungorum parasiticorum optime merito). — Perithecia carnosula, tenella, simplicia, superficialia, plerumque alba, glabra, verticaliter oblonga, apice indeterminate dehiscentia (non papillata), basi atro-radiculosa. Asci tereti-clavati, typice paraphysati, 4-8-spori, e perithecii basi nascentes. Sporidia cylindrico-bacillaria, plerumque asci longitudine, pluriseptata, hyalina. — Ad genus *Barya* (quod *Acrospermo* affine) accedit, sed distinguitur peritheciis nec demum corneis nec mycogenis nec non defectu byssi conidiophoræ et asci stipitis globuliformis etc. *Tub. anceps* potius ad *Calonectriam* nutat.

1. **Tubeufia javanica** Penz. et Sacc. l. c. — Peritheciis gregariis, 2489
verticaliter oblongis, candidis, demum cremeo-roseis, semidiaphanis, carnosulis, 350 × 150 (in sicco), basi leviter coarctatis, fuscis, nigro-radiculosis, apice subtruncatis margineque inæqualiter crenulatis, præsertim in sicco, ostiolo indeterminato; contextu perithecii laxe prosenchymatico, albo-cremeo; hyphis radicularibus, filiformibus, radiantibus, septatis, fuligineis, 5 μ. cr.; ascis tereti-clavatis, 150-200 × 18-25, breve stipitatis, apice rotundatis, filiformi-paraphysatis, octosporis; sporidiis vermicularibus, ascum subæquantibus, 5-6 μ. cr., crebre nucleato-septatis, non constrictis, subhyalinis.

Hab. in culmis Bambusæ emarcidis, Tjibodas, ins. Java.

2. **Tubeufia coronata** Penz. et Sacc. l. c. — Peritheciis gregariis, 2490
verticaliter oblongis, candidis, demum albo-cremeis v. cremeo-roseis, 180-250 × 100 (in sicco), semidiaphanis, carnosulis, ima basi leviter coarctatis infuscatis, nigro-radiculosis, apice subtruncatis margineque inæqualiter coronato-tuberculatis, tuberculis globularibus, in sicco oblongis, ostiolo indeterminato; contextu perithecii laxe prosenchymatico, pallido; hyphis radicularibus filiformibus,

radiantibus, septatis, 5 μ. cr., fuligineis; ascis tereti-clavatis, breve stipitatis, apice rotundatis, parcissime paraphysatis, octosporis, 160-190 × 25; sporidiis cylindraceis, basi acutatis, ascum æquantibus, 7-8 μ. cr., crebre septatis, non constrictis, hyalinis.

Hab. in caulibus putrescentibus Elettariæ, Tjibodas, ins. Java. — Speciei præcedenti peraffinis, videtur differre peritheciis paullo minoribus, circa apicem multo distinctius tuberculatis, sporidiis crebrius et distinctius septatis.

3. **Tubeufia anceps** Penz. et Sacc. l. c. — Peritheciis gregariis, verticaliter ovoideis, superficialibus, 180-200 × 80-100, albis, carnosulis, basi leviter coarctatis, nigro-radiculosis, apice rotundatis, non tuberculatis; contextu perithecii tenerrimo, parenchymatico, ex albo fuscidulo; ostiolo parum distincto; hyphis radicularibus radiantibus, fuligineis, septatis, 5 μ. cr.; ascis clavatis, demum breve attenuato-stipitatis, 90-120 × 11-13, aparaphysatis, octosporis; sporidiis subdistichis, fusoideis, utrinque obtusulis, sæpe curvulis, 5-7-nucleato-septulatis, non constrictis, 35-42 × 4-5, hyalinis. 2491

Hab. in ramis putridis decorticatis in Java. — Ob sporidia asco dimidio breviora et perithecia sub apice levia in genere anceps et ad *Calonectriam* vergens.

HYPOCRELLA Sacc. — Syll. II, p. 579, IX, p. 1002, XI, p. 367.

1. **Hypocrella Edwalliana** P. Henn. Hedw. 1897, p. 223. — Stromatibus hypophyllis, rotundato-pulvinatis, primo pallidis, dein aurantiacis, intus flavis, 2-3 mm. diam., bysso pallida late cinctis; ostiolis punctiformibus, obscurioribus, vix elevatis, subimmersis; peritheciis subglobosis, immersis; ascis elongato-fusoideis vel cylindraceo-clavatis, pedicellatis, apice obtusis vel subacutis, 150-250 × 11-14, aparaphysatis; sporidiis primo filiformibus longitudinaliter parallelis, dein tangentialiter secentibus in particulas subrhomboideas vel fusoideas utrinque longe acuminatas, 14-18 × 2-3, hyalinis. 2492

Hab. in foliis Lauraceæ cujusdam in Brasilia (Edwall). — Putatur cum *Mœlleriella sulphurea* Bres. (cfr. supra p. 623) congruere.

2. **Hypocrella Pernettyæ** Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 125. — Stromatibus epiphyllis, subsolitariis, globosis v. sublentiformibus, punctatis, sessilibus, carnosis; peritheciis ovoideis, 200-250 μ. diam., ostiolis punctiformibus; ascis clavatis, apice obtusis, deorsum attenuatis, 150-250 × 10-12, octosporis; sporidiis hyalinis, 2493

filiformibus, septatis, in articulos cylindraceos secedentibus (5-6 × 1 $^1/_2$).

Hab. in foliis vivis Pernettyæ repentis, Java (Massart).

3. **Hypocrella Reineckeana** P. Henn. Engl. Jahrb. XXIII, 1896, p. 286. — Stromatibus subglobosis v. pulvinatis, carnosulis, duris, basi applanatis, luteo-brunneis vel subaurantiacis, 1 $^1/_2$-3 cm. diam.; perithecis oblongis, immersis ostiolisque punctiformibus obscurioribus; ascis cylindraceis, apice obtusis, 8-sporis, 90-110 × 6-8; sporidiis longitudinaliter parallelis, ca. 90 × 0,5, in articulos innumeros secedentibus, hyalinis. 2494

Hab. ad petiolos et caules Rhaphidophoræ cujusdam scandentis in ins. Upolu ins. samoëns. — *H. phyllogenæ* (Mont.) affinis.

4. **Hypocrella camerunensis** P. Henn. Engl. Jahrb. XXIII, p. 540. 2495

Stromatibus pulvinatis, hemisphæricis, crassis, ramulos tenuiores conferte circumdantibus, sæpe confluentibus, late effusis, miniatis, $^1/_2$-3 cm. latis, ca. 5 mm. crassis, minute punctulatis, intus luteis; perithecus immersis, minutis; ascis elongato-cylindraceis, rectis v. flexuosis, apice rotundato-obtusis, basi angustioribus, 8-sporis, 180-250 × 3 $^1/_2$–4 $^1/_2$; sporidiis filiformibus parallelis, multiseptatis (in ascis) in articulos 12–15 × 0,3 secedentibus.

Hab. in ramis plantæ scandentis (Combretaceæ?) in Camerunia (Staudt).

5. **Hypocrella Mœllerlana** P. Henn. Hedw. 1897, p. 222. — Stromatibus carnosis, duris, pulvinatis, albo-tomentosis, ambitu byssino, dein flavescentibus, 4-7 mm. diam.; ostiolis punctiformibus, flavis; perithecis immersis, subglobosis; ascis clavato-cylindraceis, stipitatis, 8-sporis, 150-200 × 4; sporidiis filiformibus, vix 0.5 μ. crassis, longitudinaliter parallelis in particulas dilabentibus. 2496

Hab. in truncis Araceæ cujusdam pr. Blumenau Brasiliæ (Möller).

Hypocrella ochracea Massee, Journ. of Bot. 1896, p. 150, t. 375, fig. 10-13. — Stromatibus hypophyllis, rarissime epiphyllis, sparsis v. gregariis, initio subglobosis, dein hemisphærico-depressis, maturitate margine cinctis, 3-5 mm. diam., pallide ochraceis v. interdum subalbis, firmis, glabris, intus albis, ex hyphis gracilibus dense contextis compositis; perithecis paucis, immersis, late ovatis, ostiolis non exsertis; ascis cylindraceo-fusiformibus, apice subcapitatis, deorsum in pedicellum longum attenuatis, plerumque curvulis, jodi ope non cœrulescentibus, 250-300 × 13-15; sporidiis fasciculatis, hyalinis, linearibus, utrinque punctiformibus, multiseptatis, ad septa 2497

constrictis, circiter 200 × $3^1/_2$, in articulos ellipticos 10 × $3^1/_2$ secedentibus; paraphysibus nullis.

Hab. in foliis emortuis et coriaceis, Brasilia (Glaziou).

EPICHLOË Fr. — Syll. II, p. 589, IX, p. 1001, XI, p. 367.

1. **Epichloë Schumanniana** P. Henn. Pilz. Ostafr. p. 32. — Stromatibus subcylindraceis, curvatis, subcorniformibus, 3-5 mm. longis, circ. 1 mm. crassis, atro-carbonaceis, glabris levibusque, ostiolis non prominulis, intus albis; ascis elongato-cylindraceis, apice obtuso-rotundatis v. subgloboso-incrassatis, 8-sporis, 150-210 × 4-12; sporidiis parallelis filiformibus, multiguttulatis, hyalinis, 120-180 × 0,5-1. 2493

Hab. in glumis Schizothyrii (Schizostachyi?) brevifolii in Africa trop. (Holst).

2. **Epichloë Volkensii** P. Henn. Pilz. Ostafr. p. 32. — Stromatibus vaginas ramulorum ambientibus, subcylindraceis, curvatis, corniformibus, semini cornuto similibus, duris, atris, rugulosis, minute papillatis, usque ad 1 cm longis, 2 mm. crassis, apicibus plerumque elongatis; perithecis subglobosis, ascis cylindraceis, 8-sporis; sporidiis filiformibus. 2499

Hab. in vaginis Andropogonis exotheci in Africa trop. (Volkens).

3. **Epichloë Bambusæ** Pat. Ann. Jard. Buitenz. 1897, I. suppl. p. 125. — Stromatibus hypophyllis, longe lateque effusis, tenuibus, 8-10 cm. longis, atris, carnosulis, asperatis; perithecis ovoideo-elongatis, 230-260 × 100, confertis, numerosis, erectis, ostiolis prominulis; ascis linearibus, cylindraceis, apice obtusis, 130-150 × 5-7; sporidiis filiformibus, ascum æquantibus, in articulos cylindraceos dilabentibus, 7-8 × 2. 2500

Hab in foliis Bambusæ, Java (Massart).

4. **Epichloë Myosura** Pat. Journ. de Bot. 1897, p. 370. — Inflorescentias graminum occupans easque quasi in clavulam transformans; stromatibus stratum continuum carnosum griseolum ostiolis nigro-punctatum, rugulosum scabrumque formantibus, perithecigeris; perithecis immersis ovoideis, 300-350 × 100-160, numerosis, confertis, ostiolis conicis nigris prominulis donatis; ascis cylindraceis, elongatis, 5-6 μ. crassis, octosporis; sporidiis linearibus, non septatis, ascos æquantibus; mycelio albido; spermogoniis in stromate immersis, ovoideis, 160-200 × 100; spermatiis cylindraceis, numerosis, fuliginosis, utrinque rotundatis, 3-4 × 1. 2501

Hab. in inflorescentiis Panici in Tonkin.

5. **Epichloë Oplismeni** P. Henn. Fg. camerun. I, in Engl. Jahrb. XXII, 1895, p. 76. — Stromatibus ad vaginas foliorum subpulvinatis, oblongis, curvatis, nigerrimis, rugulosis, 3-4 mm. longis, ca. 1 mm. crassis; ascis cylindraceis, basi angustioribus, apice subcapitato rotundatis, 8-sporis, 180-220 × 5-5 $^1/_2$, sporidiis filiformibus, longitudinaliter parallelis, $^1/_3$-$^1/_2$ μ. crassis, 90-110 μ. longis, continuis, hyalinis. 2502

Hab. ad vaginas deformatas Oplismeni, Kamerun (Preuss).

BALANSIA Speg. — Syll. IX, p. 997, XI, p. 366.

1. **Balansia Jungneri** P. Henn. Fungi camerun. 1, in Engl. Jahrb. XXII, 1895, p. 76. — Mycelio sclerotioideo, corniformi, curvato-striato, brunneo, intus pallido; stromate singulari, apice sclerotii oriente, subsessili v. stipitato, subgloboso, nigro, granulato-verrucoso, magnitudine seminis Viciæ sativæ, 3 mm. diam., intus pallido v. subviridulo, stipite crasso, subcylindraceo, nigro, ca. 1 $^1/_2$ mm. longo, 1 mm. crasso; peritheciis ascisque immaturis. 2503

Hab. in ovariis Panici, Kamerun (Jungner).

CORDYCEPS Fr. — Syll. II, p. 566, IX, p. 998, XI, p. 366.

1. **Cordyceps obtusa** Penz. et Sacc. Malpighia XI, 1897, p. 523. — Stromate atro-brunneo, solitario, erecto; stipite cylindrico, subflexuoso, 6-7 centim. alt., 2 mm. crasso, glabro, levi vel hinc inde squamuloso; capitulo terminali, cylindraceo-oblongo, utrinque rotundato-obtuso, 15-18 mm. long., 3-4 mm. crasso, undique tenuissime granuloso-scabro; peritheciis numerosissimis, dense aggregatis, rectis, omnino immersis, ostiolo vix in formam verrucæ prominente, oblongis, 360-370 × 110-150; ascis cylindraceis, 170-180 × 6,5-7; sporidiis filiformibus, articulatis, 150 × 1,5-2. 2504

Hab. in larvis Coleopterorum terricolis, subsepultis, haud rara in Horto botanico Bogoriensi, ins. Java. — Medulla stromatis fibris laxiusculis, undulatis, oblique decurrentibus contexta Subaffinis videtur *C. Melolonthæ* (Tul.) Cooke (Veget. Wasps, fig. 20-22), ceterum abunde diversa.

2. **Cordyceps coccinea** Penz. et Sacc. Malpighia XI, 1897, p. 524. — Stromatibus minutis, gregariis, simplicibus, totis rubro-coccineis; stipitibus adscendentibus, curvulis, 3-7 mm. altis, 1 mm. crassis; capitulis terminalibus, simplicibus, lanceolatis vel fusiformibus, utrinque attenuato-acutiusculis, sæpius curvulis, 8-10 mm. long., 2505

2-4 mm. crassis, pulcre rubris, peritheciorum ostiolis prominentibus scabris; perithecis immersis vel versus clavulæ apicem semiimmersis, rectis vel paullulum obliquis, oblongis, ostiolis prominentibus, 185-210 × 110-125; ascis cylindraceis, 150-160 × 3,5; sporidiis filiformibus, 120 × 1, in articulos bacillares cylindraceos, 3,5 × 1 mox secedentibus.

Hab. in nymphis Coleopteri cujusdam in folliculo vel capsula chitinosa, nigra, compacta inclusis, subterraneis, Tjibodas, ins. Java. — Affinis *C. militari* et *C. adpropinquanti*, sed certe diversa.

3. **Cordyceps citrea** Penz. et Sacc. Malpighia XI, 1897, p. 523. — 2506
Stromate majusculo, toto pulcre citreo, ramoso, capitulis pluribus; stipite erecto, compresso, glaberrimo, long. 4-4,5 centim., lato 5 mm., apice parce ramoso, ramulis erectis, brevibus, cylindraceis vel compressis; capitulis in apice ramulorum terminalibus vel rarius oblique insertis vel etiam lateralibus ellipticis, obtusis, apice rotundato, peritheciorum ostiolis undique scabris, 5-10 mm. long., 2-4 mm. crassis, pulcre luteis vel aurantiacis; perithecis immersis rectis (haud obliquis), oblongis, parvulis (250 × 90 μ.), ostiolo verruciformi, prominente; ascis cylindraceo-clavatis, 200-220 × 3,5-4; sporidiis filiformibus, articulatis, 180-200 × 1.

Hab. in larvis Coleopterorum (Lamellicornium?) in terra vel in ligno putrido sepultorum, Tjibodas, ins. Java. — Species perpulcra, valde singularis et distincta.

4. **Cordyceps Pittieri** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, 2507
p. 160. — Stromatibus cylindraceis, flexuosis, glabris, 5-6 cm. altis, 4-5 mm. crassis, vulgo geminatis ad basim segmenti cephalici larvæ; clavula perithecigera 1-1 $^1/_2$ cm. alta, leviter acuminata, basi prominente, uno latere decurrente, superficie tenuiter granulosa; perithecis oblongis, 330-360 × 150-180; ascis vermiformibus, 110-120 × 6; sporidiis filiformibus, ascos subæquantibus, deinde in articulos secedentibus.

Hab. in larva Coleopteri xylophagi, Costa-Rica.

5. **Cordyceps ? Cusu** Pat. Bull. Soc. Myc. de Fr. 1895, p. 229. — 2508
Stromatibus solitariis vel gregariis, carnosis, ochraceis vel flavis (nec rubris nec aurantiacis), 4-8 cm. altis, 2-3 mm. diam., claviformibus, apice obtusis, glabris, levibus, contextu ochraceo; perithecis...., e crusta tenui ochracea matricem obducente oriundis.

Hab. in larva Coleopteri cujusdam ad terram in Æquatoria (v. Lagerheim).

6. **Cordyceps oxycephala** Penz. et Sacc. Malpighia XI, 1897, p. 521. 2509
— Stromate rufo-testaceo, solitario, ex cervice Hymenopterorum prorumpente; stipite filiformi, cylindrico, tortuoso, glabro long. 12–16 cm., crass. 1-1,5 mm.; capitulo oblongo-fusoideo, apice acuto, long. 12-15 mm., crass. 2-3 mm., glabro, ostiolis peritheciorum prominentibus squamoso-scabro; peritheciis immersis, elongatis, oblique insertis, ostiolo tamquam denticulo prominente, 1000-1100μ. long., 190-210 μ. crassis; ascis numerosis, cylindraceis, 100-120 × 8-9; sporidiis filiformibus, tenuibus, articulatis, 100 × 1-1,5.

Hab. in cervice Vespæ velutinæ Lep., Tjibodas, ins. Java. — Affinis *C. sphecophilæ,* a qua tamen videtur differre clava acutiore, scabriore, peritheciis magis obliquis etc.

7. **Cordyceps lachnopoda** Penz. et Sacc. Malpighia XI, 1897, p. 521. 2510
— Stromate citreo, exiguo, solitario, capitulo longe pedunculato; stipite long. 2-3 centim., 0,4 mm. crasso, pilis incoloribus, patulis undique tecto; capitulo ovoideo, minutulo, long. 1 mm., lato 0,7 mm., ostiolis peritheciorum paullum prominulis, obtusis; peritheciis oblique insertis, pro capitulo majusculis, 360-400 × 170-180, ellipsoideis; ascis cylindraceis, flexuosis, 140-200 × 3,5-4; sporidiis filiformibus, vermicularibus, articulatis, hyalinis, 120-150 × 1.

Hab. in capite Hymenopteri cujusdam, Tjibodas, ins. Java. — Species præsertim stipite piloso distinctissima.

8. **Cordyceps Koningsbergeri** Penz. et Sacc. Malpighia XI, 1897, 2511
p. 522. — Stromatibus griseo-albidis, solitariis vel rarius compluribus ex eodem corpore prorumpentibus; stipite cylindrico-filiformi, intricato-flexuoso, glabro, usque ad 8–10 centim. long., 1 mm. crass., tenaci, griseo; clavula (in speciminibus juvenilibus) a stipite vix distincta, cylindrico-fusoidea, acuta, levi, 7-8 mm. longa, 1,5 mm. crassa; peritheciis omnino immersis, ostiolis haud prominentibus, sphæricis, 120-150 μ. diam.; ascis et sporidiis in speciminibus immaturis haud visis.

Hab. in nymphis Termitis sp., epidemica et frequentissima in quadam Termitum colonia, omnes fere incolas enecans, Buitenzorg, ins. Java. — Dedit complura specimina optimus Doct. I. C. Koningsberger, cui speciem dicatam volumus. — Affinis videtur *C. myrmecophilæ* Ces. sed diversa colore, statura majore, clava acutiore etc.

9. **Cordyceps deflectens** Penz. et Sacc. Malpighia XI, 1897, p. 522, 2512
— Stromate albido, solitario ex ano larvarum Lepidopterorum prorumpente; stipite erecto, flexuoso, carnoso, superne incrassato,

aliquantum irregulari et compresso, squamis vel appendicibus filiformibus carnosis hinc inde instructo, subinde ramoso; capitulo in stipite vel in ejus ramulis terminali, clavato, obtuso, subinde apice bifido, albido; peritheciis subsuperficialibus, basi laxioribus remotis et majoribus, apice confertioribus, minutis, globoso-sphæricis, papillatis, albidis, 350-370 μ. diam.; ascis 170-185 × 4-5; sporidiis filiformibus, articulatis, 130-150 × 1.

Hab. in larvis Lepidopterorum in terra sepultis, Tjibodas, ins. Java. — Forte ex habitu affinis *C. Hawkesii* Gray (Cooke, l. c., tab. I, fig. 8), sed distinctissima.

10. **Cordyceps atrobrunnea** Penz. et Sacc. Malpighia XI, 1897, p. 522. 2513
— Stromate atrobrunneo, solitario ex abdomine larvarum Lepidopteri cujusdam in terra sepultarum; stipite cylindrico, robusto, tortuoso, glabro, levi vel hinc inde squamuloso, simplici, 7-7,5 centim. long., 2-2,5 mm. cr.; clavula terminali, cylindrica vel incurva, stipite paullo crassiore, longiuscula (35 mm. long., 3 mm. crassa), oblique inserta, apice acuto, sterili prædita, peritheciorum ostiolis vix prominentibus nigro-punctulata; peritheciis numerosissimis, omnino immersis, rectis (haud obliquis), oblongis, apice attenuato, 330-370 × 110-145; ascis cylindraceis, 140-175 × 4-4,5; sporidiis filiformibus, articulatis, 130-140 × 1.

Hab. in larvis Lepidopterorum sepultis, Tjibodas, ins. Java. — Habitu nonnihil accedit ad *C. Robertsii* (= *C. Huegelii*) et ad *C. Barnesii* (Cooke, Veget. Wasps, fig. 29 et tab. 1, fig. 2), ceterum plurimis notis diversa. Medulla stromatis compacta, uniformis, fibris rectis, longitudinalibus, subtilissimis contexta.

11. **Cordyceps Baumanniana** P. Henn. Engl. Jahrb. XXII, p. 539, 2514
tab. XIV, fig. 5 *a-d.* — Stipite cylindraceo, carnoso, levi, glabro, flavo, $1^1/_2$ cm. longo, 1 mm. crasso, apice bicapitato; capitulis subglobosis v. hemisphæricis, pulvinatis, carnosis, flavo-aurantiis, punctulatis, $1\text{-}1^1/_2$ mm. diam.; ascis cylindraceis, apice obtuso-rotundatis vix incrassatis, stipitatis, 8-sporis, 150-200 μ. longis, $3\text{-}3^1/_2$ μ. latis; sporidiis ascorum longitudine, filiformibus, septatis, in articulos cylindraceos, hyalinos, 15 μ. longos, 1 μ. crassos secedentibus.

Hab. in larva cujusdam Lepidopteri in Togo, Afr. occ. (Baumann).

12. **Cordyceps submilitaris** P. Henn. Hedw. 1897, p. 222. — Stro- 2515
matibus sparsis v. gregariis, longe stipitatis, clavatis e mycelio membranaceo, effuso, superficiali, pallido orientibus, 6-7 cm. lon-

gis, aurantiacis, apice clavato-incrassatis, obtusis, 4-5 mm. crassis; peritheciis subliberis, gregariis, conicis; ascis cylindraceis, clavatis, 250-340 × $3^1/_2$-4, apice rotundis, 8-sporis; sporidiis longitudinaliter parallelis, filiformibus, in innumeros articulos hyalinos, vix 0,5 μ. crassos secedentibus.

Hab. ad Sphinges pr. Blumenau Brasiliæ (Möller).

13. **Cordyceps Moelleri** P. Henn. Hedw. 1897, p. 221. — Stromatibus sparsis, erectis, pallide flavis, $1^1/_2$ cm. longis; pedicello basi discoideo-radiato, 3-5 mm. longo, $1^1/_2$ mm. crasso; clavula spicata, asperata, apice subulata, sessili, usque ad 5 mm. elongata; peritheciis superficialibus omnino liberis, conico-ovoideis; ascis cylindraceo-clavatis, 8-sporis, 250-350 × 4-5, apice rotundatis; sporidiis filiformibus in articulos secedentibus, 0,5 μ. crassis, hyalinis. 2516

Hab. in Papilione pr. Blumenau Brasiliæ (Möller), in Noctua pr. Ralum Novæ Pommeraniæ (Dahl).

14. **Cordyceps Engleriana** P. Henn. Engl. Jahrb. XXIII, p. 538, tab. XIV, fig. 3 *a-g.* — Stromatibus sparsis, flavo-cinereis, 10-13 mm. longis, stipitatis; peritheciis omnino liberis, spicatis (8-20), cylindraceis, fusiformibus, apice obtuso-rotundatis, coriaceis, firmis, 1-$1^1/_2$ mm. longis, $^1/_4$ mm. crassis, stipite setiformi, subatro, 6-10 mm. longo, interdum ramoso, curvato; ascis cylindraceis, valde elongatis, apice rotundato-incrassatis, 8-sporis, 300-400 × 8-10; sporidiis filiformibus parallelis, hyalinis, in articulos innumeros, cylindraceos 22-25 × $1^1/_2$-2 secedentibus; stromatibus conidiiferis filiformibus, apice ramosis, atris, 11-15 mm. longis, 200 μ. crassis, ramulis 4-5 μ. crassis atrobrunneis; basidiis oblongis, 6-7 × $3^1/_2$-4; conidiis ovoideo-ellipsoideis, hyalinis, 4-5 × 3-$3^1/_2$. 2517

Hab. in Arachnide in Camerunia (Staudt).

15. **Cordyceps Wittii** P. Henn. Engl. Jahrb. XXIII, p. 539, t. XIV, fig. 4 *a-c.* — Stromatibus magnis, simplicibus v. dichotomis, subteretibus v. compressis, apice subulatis, angustioribus, coccineis, usque ad 9 cm. longis, 2 mm. crassis; peritheciis semiimmersis, hemisphæricis, granuliformibus; ascis cylindraceo-oblongis, apice obtuso-rotundatis, haud stipitatis, 8-sporis, 50 × 14; sporidiis longitudinaliter parallelis, filiformibus subfusoideis, utrinque acutis, sæpe curvulis, nec septatis nec secedentibus, 40-45 × 1. 2518

Hab. in Mygales spec. in Æquatoria (E. Witt).

16. **Cordyceps brasiliensis** P. Henn. Hedw. 1897, p. 221. — Stromate carnoso, cylindraceo vel subcompresso, curvato flexuoso, pallido, 5 cm. longo, 2 mm. crasso, apice furcato; peritheciis laxe 2519

gregariis, subspiciformibus, oblongis apice papillatis, liberis vel unilateraliter pulvinato-adnexis, 0,7-0,8 mm. longis; ascis cylindraceis, flexuosis, apice rotundatis, stipitatis, 8-sporis, 220-290 μ. longis, 4-5 μ. crassis; sporidiis filiformibus longitudinaliter parallelis dense guttulatis, 5-6 μ. crassis, haud secedentibus?

Hab. in larvis pr. Rio de Janeiro Brasiliæ (Glaziou).

17. **Cordyceps Glaziovii** P. Henn. Hedw. 1897, p. 222. — Stromate 2520
simplici, stipite cylindraceo, torto, flexuoso, pallido, 6 cm. longo, 2-3 mm. crasso, apice capitato; clavula perithecigera ovoideo-sphæroidea, rufo-brunnea, granulato-verrucosa, 5-7 × 5 mm.; perithecciis immersis, subglobosis; ascis cylindraceis, 120-180 × 4-5, apice hemisphærico v. capitato, incrassatis; sporidiis filiformibus, multiseptatis, dense guttulatis, in articulos numerosos, $^1/_2$ μ. crassos secedentibus.

Hab. in larva Papilionis? pr. Rio de Janeiro Brasiliæ (Glaziou).

18. **Cordyceps velutipes** Massee, Ann. of Bot. 1895, p. 21. — So- 2521
litaria v. sæpius aggregata, ex parte inf. articuli cervicalis larvæ oriunda, tota brunneo-ochracea (in sicco); stipite simplici v. furcato 2-4 cm. longo, 3-4 mm. cr., sæpius inflexo, deorsum dense piloso, sursum demum glabrato; clavula subglobosa v. late ovata, 1 cm. longa; peritheciis subimmersis; ascis angustis, sub apice capitato contractis, octosporis; sporidiis parallele fasciculatis, multiseptatis, 150-160 × 2.

Hab. in larvis Elateridum Klersdorf in Africa austr. (Alston).

19. **Cordyceps Carabi** Quél. XXI Suppl. p. 7, tab. IV, f. 19 (Ass. 2522
Franç. 1897). — Stipite subfiliformi 5-6 cm. long. flexuoso, basi 0,6-0,8 mm. cr., glabro, violaceo, e mycelio sulphureo pallente oriundo; capitulo sphærico, 3-4 mm. cr. lilacino, eleganter reticulato; peritheciis ovoideo-sphæricis, $^1/_2$ mm. diam.; ascis linearibus 50-60 μ. long. 8-sporis; sporidiis capillaribus, hyalinis, demum in articulos cylindraceos, 4 μ. longos secedentibus.

Hab. in larvis Carabi (auronitentis?) humi jacentibus in silvis montanis agri Tridentini et Juræ (Bresadola et Quélet).

20. **Cordyceps Callidii** Quél. XXI Suppl. p. 7, f. 17, in Assoc. Franç. 2523
1897. — Stipite filiformi fibroso-carnosulo, flexuoso, plus minus longo, 3-7 cm., glabro, lilacino-roseo, e mycelio pannoso fulvo oriundo; capitulo oblongo-fusoideo, 5-8 mm. longo, violaceo v. lilacino, ostiolis obscurioribus punctato, peritheciis ovoideis 0,4-0,5 mm. d.

membranaceis lilacinis; ascis 8-sporis; sporidiis capillaribus, moniliformibus, 50-60 μ. long., in articulos triloculares secedentibus, locellis 2 μ. diam.

Hab. in larva Callidii in arborum caudicibus, Champagne et Jura (Boudier et Quélet). Quoad *C. Helopis* Q. cfr. Quél. l. c. f. 18.

21. **Cordyceps Henleyæ** Massee, Ann. Bot. VIII, p. 119, cum tab. 2524
et in Rev. mycol. 1899, p. 3, t. 179, f. 1-12. — Solitaria, e regione cervicali larvæ oriunda; stipite erecto, 18-20 cm. long., $^2/_3$ cm. cr., cylindraceo, basi leniter constricto, brunneo pallido, tenuiter velutino, sicco longit. striato, sursum dendroideo-ramoso; ramis fertilibus 7-9, in corymbum dispositis, 6-10 cm. long., $^1/_2$ cm. cr., deorsum tenuatis; peritheciis superficialibus, confertis, ampulliformibus, ostiolo elongato-brunneo-pallido; ascis anguste clavatis, stipitatis, octosporis; sporidiis parallele fasciculatis, contortis, hyalinis, linearibus utrinque attenuatis, multiseptatis, 125-130 × 2, in articulos 2-5 μ. longos demum secedentibus.

Hab. in larva quadam magna Hepiali, Victoria Australiæ (Miss. M. Henley).

22. **Cordyceps isarioides** Curtis ap. Massee in Rev. mycol. 1899, 2525
p. 8, t. 178, fig. 36-39. — Gregaria, e mycelio denso, albo, larvam omnino obvolvente oriundo; stipite 4-8 mm. longo, 1-5 mm. cr., cylindraceo, glabrescente, ochraceo (in sicco), passim curvulo; capitulo cylindraceo 3-6 mm. longo, obtuso, stipitem non excedente; peritheciis omnino superficialibus, ampulliformibus, ostiolis elongatis ochraceis patentibus; ascis anguste cylindricis, tenuiter capitatis, in stipitem gracilem tenuatis, octosporis; sporidiis filiformibus, continuis, flexuosis, hyalinis, 125-135 × 1, parallele fasciculatis.

Hab. in fragmentis larvæ cujusdam in Amer. bor. (Curtis n. 6521).

23. **Cordyceps Lunti** Giard, Bull. Soc. entom. Fr. 1895, p. CLXXXI 2526
et in Rev. myc. 1899, p 11. — Tota rubro-aurantia; capitulo apice sterili donato, 5 mm. cr., stipite e subiculo pannoso-velutino larvam obducente nascente, 2 cm. longo, 1 mm. cr.; peritheciis punctiformibus, brunneis; ascis....

Hab. in larva Elateridis cujusdam e tribu Argypninorum, in Gallia.

24. **Cordyceps albella** Massee in Rev. mycol. 1899, p. 10, *Cordyceps* 252
albidus B. et Curt. in Herb., nec Pat. — Stipitibus numerosis, gracilibus, e parte inf. thoracis et abdominis oriundis, albidis v. fla-

vido tinctis, 0,5-1 cm. alt., 1-2 mm. cr. cylindraceis v. claviformibus (immaturis).

Hab. in forma perfecta Gryllidæ cujusdam, Cuba (Wright, n. 890). — Insectum mucedinea alba obvolutum est.

25. **Cordyceps Mawleyi** Weswood Gard. Chron. 1891, p. 553, f. 115 2595 et in Rev. mycol. 1899, p. 10.

Hab. in utraque extremitate larvæ Noctuæ v. Hepiali humi dejectæ in Britannia. — Status isarioideus, constans ex filamentis copiosis, emergentibus et ex clava gracili, flexuosa, cm. 2,5 longa.

26. **Cordyceps Stenocori** Quél. XX, Suppl. 1895, p. 7, t. VI, fig. 18. 2596 — Stipite subfiliformi, 2-3 cm. longo, simplici v. ramoso, albo-floccoso, æque ac mycelio; capitulo fusoideo v. linguiformi, simplici v. diviso, pulverulento, albo; conidiis ellipscideis, 5 μ long., 2-3-guttulatis, hyalinis.

Hab. in parte sup. corporis Stenocori mordacis, Vosges (René Ferry). — Proxima videtur *C. militari*.

Fam. 4. **Dothideaceæ** Nits. et **Fuck.**

Sect. 1. **Hyalosporæ.**

PHYLLACHORA Nits. — Syll. II, p. 594, IX, p. 1006, XI, p. 368.

1. **Phyllachora Anonaceæ** Rehm, Hedw. 1897, p. 373. — Stromatibus in maculis hypophyllis, irregulariter orbicularibus, usque ad 5 mm. diam., dein confluentibus, rufescentibus innatis, in epiphyllo in maculis nigris conspicuis, semiglobosis, nigris, haud nitentibus, 0,3-0,5 mm. diam., punctulatis, loculis 2-3; ascis cylindraceis, obtusis, 8-sporis, circiter 90 × 12; sporidiis oblongis, obtusis, 1-cellularibus, guttulis oleosis repletis, hyalinis, monostichis, 12 × 6; paraphysibus filiformibus. 2590

Hab. in foliis Anonaceæ cujusdam pr. São Francisco Brasiliæ (Ule).

2. **Phyllachora Hibisci** Rehm, Hedw. 1897, p. 370. — Stromatibus in foliorum maculis epiphyllis subferrugineis, hypophyllis rufescentibus, 2-3 mm. latis, demum confluentibus insidentibus, centraliter sessilibus, amphigenis, semiglobosis, 0,2-0,3 mm. diam., demum 2-3 connatis, atris, in hypophyllo nitentibus, 1-3-locularibus; ascis 2591

clavatis, rotundatis, 8-sporis, 90 × 15; sporidiis ellipticis, 1-cellularibus, guttulis oleosis repletis, hyalinis, distichis, 18 × 7; paraphysibus filiformibus.

Hab. in foliis vivis Hibisci, Brasilia (Ule).

3. **Phyllachora pestis-nigra** Speg.-Sacc. Syll. IX, p. 1014. — Var. **caracaënsis** Rehm, Hedw. 1897, p. 368. — Stromatibus epiphyllis in foliis haud maculatis, pagina inferiore concave contracta, sessilibus, sæpe confluentibus, irregularibus, convexulis, colliculosis, atris, nitentibus, 2-4 mm. diam., carbonaceis, intus subfuscis; ascis cylindraceis, octosporis, 75-90 × 8; sporidiis oblongis, rotundatis, hyalinis, 8-9 × 5-6; paraphysibus ramosis. 2532

Hab. in foliis Malpighiaceæ cujusdam pr. Caraca, Minas Geraes Brasiliæ (Ule). — A typo stromatibus minoribus differt.

4. **Phyllachora Collææ** Rehm, Hedw. 1897, p. 369. — Stromatibus epiphyllis, folio haud mutato innatis, convexulis, colliculosis, irregulariter 2-4 mm. diam., atris, nitentibus, pluriloculariibus; ascis ellipticis, sessilibus, usque ad 70 × 15, octosporis; sporidiis fusiformibus, rectis, unicellularibus, hyalinis, distichis, 18 × 5; paraphysibus filiformibus. 2533

Hab. in foliis Collææ argentinæ, Argentina.

5. **Phyllachora dalbergiicola** P. Henn. Hedw. 1897, p. 224. — Stromatibus epiphyllis, sparsis vel gregariis, pulvinatis, rugulosis, atris, nitidis, 1-1 $^1/_2$ mm. diametro; peritheciis (3-6) subglobosis; ascis clavatis, obtusis, sessilibus, 8-sporis, 45-55 × 18-26; sporidiis subdistichis, interdum conglobatis, late ellipsoideis, utrinque rotundatis, inæquilateralibus, continuis, intus guttulatis, hyalinis, 11-14 × 7-9. 2534

Hab. in foliis Dalbergiæ spec. in Brasilia (Malme). — A *Phyllachora Dalbergiæ* Niessl ascis et sporidiis multo brevioribus distincta.

6. **Phyllachora Desmodii** P. Henn. Pilz. Ostafr. p. 34. — Stromatibus epiphyllis, sparsis v. gregariis, minutis, punctiformibus, pulvinatis, atris, nitentibus; peritheciis 1 vel paucis, atris; ascis cylindraceo-clavatis, obtusis, vix pedicellatis, 8-sporis, 43-46 × 6-7; sporidiis oblique monostichis, ellipsoideis v. subovoideis, continuis, hyalino-subfuscescentibus, 9-10 × 6-7. 2535

Hab. in foliis Desmodii Scalpe in Africa trop. (Volkens).

7. **Phyllachora amphidyma** Penz. et Sacc. Malpighia XI, 1897, p. 504. — Stromatibus laxe gregariis, innatis, epiphyllis, sed in pagina aversa quoque visibilibus (hinc amphidymis), orbicularibus, marginulo epidermico adhærente cinctis, utrinque convexo-applanatis, 2536

vix 1 mm. d., levibus, atro-nitentibus, 2-5-locularibus, loculis globulosis, 0,3 mm. diam., ostiolis punctiformibus; ascis cylindraceis, breve stipitatis, apice rotundatis, 100-125 × 7-8, octosporis, filiformi-paraphysatis; sporidiis monostichis, oblongo-ellipsoideis, rectis, 14-16 × 6, obsolete 2-guttatis, hyalinis.

Hab. in foliis nondum emortuis Salaciæ Brunnerianæ, ovalifoliæ et oblongifoliæ in Horto bot. Bogoriensi, ins. Java. — Pluribus affinis, e. g. *Ph. triviali, paraguayæ, abyssinicæ,* sed præsertim *Ph. explanatæ* (Lév.) Sacc., a qua tamen stromatibus convexis nec planis, ascis cylindraceis nec fusoideis etc. dignoscitur.

8. **Phyllachora peribebuyensis** Speg. – Sacc. Syll. IX, p. 1017. — Var. 2537
bullosa Rehm, Hedw. 1897, p. 368. — Stromatibus hypophyllis, pagina superiore folii profunde foveolata et subsanguinee decolorata, vel ramulicolis, ramulis denigratis et verrucose suberosis usque ad 1 cm. longis, 0,5 cm. latis lateraliter intumescentibus insidentibus, atris, verruculosis, intus albidulis, 2-4 mm. diam., loculis plurimis globosis immersis; ascis cylindraceis, usque 120 × 10, octosporis; sporidiis oblongis, obtusis, 1-cellularibus, hyalinis, 12-15 × 6,7, monostichis; paraphysibus filiformibus.

Hab. in foliis ramulisque Miconiæ, Minas Geraës Brasiliæ (Ule).

9. **Phyllachora Negeriana** P. Henn. et Lind. Hedw. 1897, p. 225. 2538
— Stromatibus epiphyllis, pulvinatis, acutangulis, sæpe confluentibus, nigris, nitentibus, 2-8 mm. diam.; peritheciis immersis, subglobosis; ascis cylindraceo-clavatis, octosporis, apice rotundatis, breviter stipitatis, 100-120 × 20-33; sporidiis monostichis v. subdistichis, oblongis, utrinque rotundatis, crasse tunicatis, hyalinis, intus nebulosis, 18-22 × 10-14; paraphysibus filiformibus, 2 μ. cr.

Hab. in foliis Kageneckiæ oblongæ pr. Santiago in Chile (Neger). — Sporidia strato hyalino 1-1 $^1/_2$ μ. crasso demum evanescente obvolutis.

10. **Phyllachora Feijoæ** Rehm, Hedw. 1897, p. 370. — Stromatibus 2539
epiphyllis, irregulariter orbicularibus, tenuibus, verruculosis, loculis plus minusve congregatis et hemisphærice prominentibus, poro conspicuo pertusis, atris, nitentibus, 2-5 mm. diam.; ascis clavatis, rotundatis, 8-sporis, 60 × 25; sporidiis oblongis, obtusis, 1-cellularibus, guttulis oleosis repletis, hyalinis, distichis, 18 × 10; paraphysibus filiformibus.

Hab. in foliis vivis Feijoæ, pr. Serra Geral, Minas Geraës Brasiliæ (Ule).

11. **Phyllachora subopaca** Rehm, Hedw. 1897, p. 367. — Stromatibus epiphyllis, in hypophyllo haud conspicuis, suborbicularibus, collioulosis, atris, nitentibus, subcarbonaceis, 3-6 mm. diam.; ascis cylindraceis v. fusoideis, octosporis, 75 × 10-15; sporidiis oblongis, rotundatis, 1-cellularibus, guttulis oleosis repletis, (an demum 2-cellularibus?) viridulo-hyalinis, monostichis, 12-14 × 7; paraphysibus filiformibus. 2540

Hab. in foliis Myrtaceæ cujusdam, Paraguay (Balansa).

12. **Phyllachora Urbaniana** Allesch. et P. Henn. Hedw. 1897, p. 236. — Stromatibus amphigenis, plerumque hypophyllis, circularibus, gregariis, sæpe confluentibus, multilocularibus, tuberculatis, vertice umbilicatis et sæpe papillatis, nitentibus, atris; ascis oblongo-clavatis, vertice attenuatis, sed obtusis, crasse stipitatis, 8-sporis, ca. 70-90 μ. et ultra longis, 16–18 μ. crassis; sporidiis distichis, fusoideis, inæquilateralibus vel subcurvulis, utrinque acutiusculis, pluriguttulatis, continuis, hyalinis, ca. 14-15 μ. longis, 6-8 μ. crassis. 2541

Hab. in foliis Myrtaceæ cujusdam pr. Goyaz Brasiliæ (Glaziou).

13. **Phyllachora distinguenda** Rehm, Hedw. 1897, p. 367. — Stromatibus epiphyllis in foliis vix maculatis insidentibus, irregulariter orbicularibus, oblongis v. ellipticis, convexis, innatis, subcolliculosis, ostiolis minutissimis conspicuis, atris, nitentibus, 2-3 mm. diam., carbonaceis; ascis ellipticis, octosporis, 60–70 × 18; sporidiis oblongis, obtusis, rectis, 1-cellularibus, guttulis oleosis repletis, hyalinis, bivel tristichis, 18-20 × 4½; paraphysibus filiformibus. 2542

Hab. in foliis vivis Myrtaceæ cujusdam pr. Ouro Preto Brasiliæ (Ule).

14. **Phyllachora Lehmanniana** P. Henn. Hedw. 1897, p. 225. — Stromatibus hypophyllis, pulvinatis, confluentibus, 3-4 mm. diametro, atris, nitidis; perithecüs subglobosis; ascis cylindraceo-clavatis, pedicellatis, apice rotundatis, octosporis, 95-120 × 12-16; paraphysibus filiformibus; sporidiis monostichis vel subdistichis, oblongis biguttulatis, hyalinis, 17–22 × 5–6. 2543

Hab. in foliis Vochysiæ Lehmanni in Columbia (Lehmann).

15. **Phyllachora nidulans** Pat. - Sacc. Syll. XI, p. 371. — Var. **Senecionis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 230. — Stromatibus epiphyllis, sparsis, minutissimis, convexis, atris; loculis 3-5; ascis aparaphysatis?, 70-80 × 9-12; sporidiis ovoideis, hyalinis, 15 × 8-10. 254

Hab. in foliis Senecionis in Æquatoria (v. Lagerheim).

16. **Phyllachora physalosporoides** Rehm, Hedw. 1897, p. 371. — 254

Stromatibus in superiore foliorum pagina vix decolorata gregarie innatis, fusco-atris, convexulis, 1 (?) locularibus, submembranaceis, 0,2-0,3 mm. diam., interdum arcte connatis; ascis cylindraceis, rotundatis, 8-sporis, 70 × 10; sporidiis oblongis, obtusis, 1-cellularibus, guttulis oleosis minimis repletis, dilutissime flavido-hyalinis, monostichis, 12 × 7; paraphysibus filiformibus.

Hab. ad folia viva Compositæ cujusdam juxta mare crescentis pr. Itajahy Brasiliæ (Ule).

17. **Phyllachora Psychotriæ** Rehm, Hedw. 1897, p. 371. — Stromatibus amphigenis, maculis vix conspicuis decoloratis innatis, oblongis v. irregularibus, colliculosis, atris, subnitentibus, submembranaceis, 2-5-locularibus, 1-2 mm. diam.; ascis cylindraceis, 90 × 6-7, octosporis; sporidiis ellipticis, 1-cellularibus, guttulis oleosis repletis, hyalinis, 10 × 5, monostichis; paraphysibus filiformibus. 2546

Hab. in foliis siccis Psychotriæ in Brasilia.

18. **Phyllachora Randiæ** Rehm, Hedw. 1897, p. 371. — Stromatibus epiphyllis, folio haud mutato innatis, subnitentibus, nigris, semiglobosis, 2-3 irregulariter congregatis, 0,3-0,5 mm. diam., subcarbonaceis, loculis 1-3 immersis; ascis cylindraceis v. subfusiformibus, 8-sporis, 50-60 × 10-12; sporidiis oblongis, obtusis, 1-cellularibus, hyalinis, mono-vel distichis, 12 × 5; paraphysibus filiformibus. 2547

Hab. in foliis Randiæ pubescentis, Bolivia (Hieronymus et Lorentz).

19. **Phyllachora Plantaginis** Ell. et Ev. Proc. Acad. Philad. 1895, p. 427. — Stromatibus epiphyllis, gregariis, maculis exsiccatis insidentibus, convexo-hemisphæricis, nigris, $^1/_4$-$^1/_2$ mm. diam. vel confluentibus et majoribus, basi innatis, apice papilliformi, loculis stylosporis oblongis, hyalinis, biguttulatis, 6-8 × 2-2$^1/_2$, metientibus repletis; ascis maturis non visis. 2548

Hab. in foliis Plantaginis Rügelii, Wisconsin, Amer. bor. (I. Davis).

20. **Phyllachora Aspidospermatis** Rehm, Hedw. 1897, p. 369. — Stromatibus gregariis, epiphyllis, innatis, convexulis, fusco-nigris, 0,3 mm. diam., solitariis vel binis confluentibus, 1-locularibus, submembranaceis; ascis fusoideis, 75 × 15, octosporis; sporidiis oblongis, rotundatis, 1-cellularibus, hyalinis, 12 × 6, mono-vel distichis; paraphysibus filiformibus. 2549

Hab. in foliis Aspidospermatis Quebracho, Paraguay (Balansa).

21. **Phyllachora Alyxiæ** Pat. Bull. Soc. Myc. de Fr. 1896, p. 136. 2550

— Maculis nullis; stromatibus epiphyllis, sparsis, orbicularibus, convexis, nitentibus, atris, $^1/_2$-2 mm. diam., 2-4-locularibus; loculis angulosis, intus albis, poro minuto, 20 μ. lato, pertusis; ascis cylindraceis, 8-sporis, 80-100 × 10; paraphysibus parum distinctis; sporidiis hyalinis, monostichis, ovatis levibus, 2-guttulatis, 13-16 × 6-7.

Hab. in pagina super. foliorum Alyxiæ, ins. Tahiti.

22. **Phyllachora Henningsii** Sacc. et Syd. *Phyllachora crotonicola* P. Henn. Hedw. 1895, p. 322, nec Pat. — Stromatibus amphigenis sparsis, carbonaceis, nigris, rugulosis, hemisphærico-pulvinatis, $^1/_3$ mm. diam.; ascis cylindraceo-oblongis, obtusis, subsessilibus, 80-100 × 12-14, octosporis, paraphysibus filiformibus obvallatis; sporidiis late ellipsoideis, monostichis raro subdistichis, intus granulatis, hyalinis, 11-13 × 7-9. 2551

Hab. in foliis Crotonis spec., Goyaz Brasiliæ (Ule).

23. **Phyllachora Julocrotonis** Bres. Hedw. 1896, p. 300. — Maculis nullis; stromatibus epiphyllis, innato-superficialibus, subglobosis vel pulvinatis, laxe gregariis, subruguloso-papillatis, carbonaceis, atro-nitentibus, $^1/_2$-1 mm. latis, 1-4-locularibus, loculis maiusculis; ascis cylindraceis, crassiuscule pedicellatis; paraphysibus filiformibus obvallatis, 100-120 × 10-12; sporidiis recte v. oblique monostichis, ellipticis, uno latere compressis, chlorino-hyalinis, 14-16 × 8-10. 2552

Hab. ad folia viva Julocrotonis spec. pr. Blumenau Brasiliæ (Möller). — Species hæc stromatibus sæpe 1-locularibus, forma fere perithecioidea ad *Physalosporam* plane accedit, sed eorum natura prorsum dothideacea. *Phyllachoræ Michelii* Speg. videtur valde affinis. Sec. cl. P. Hennings *Phyllachora Julocrotonis* Bres. et *Trabutia crotonicola* Rehm (Sacc. Syll. IX, p. 601) sunt *Phyllachora Crotonis* (Cke.) Sacc. Syll. II, p. 599.

24. **Phyllachora Euphorbiaceæ** Rehm, Hedw. 1897, p. 372. — Stromatibus amphigenis, gregariis, innatis, convexis, atris, nitentibus, singularibus vel 2-3 confluentibus, demum verruculosis, loculis 1-3; ascis cylindraceis, rotundatis, 8-sporis, 60-75 × 10-12; sporidiis oblongis, 1-cellularibus, hyalinis, monostichis, 10 × 5. 2553

Hab. in foliis Euphorbiaceæ cujusdam, Paraguay (Balansa).

25. **Phyllachora ficicola** Allesch. et P. Henn. Hedw. 1897, p. 236. — Stromatibus amphigenis, in pagina superiore folii magis evolutis, inferiore minus distinctis, rotundatis vel oblongis, subconicis, vertice applanatis, nitidis, atris, ca. 1-2 mm. latis, loculis minutis; ascis 4-sporis?, paraphysatis; sporidiis oblongis, utrinque obtusis, 2554

continuis, granulatis, hyalinis, ca. 16-20 μ. longis, 6-8 μ. crassis; paraphysibus filiformibus.

Hab. in foliis Fici spec. pr. Goyaz Brasiliæ (Glaziou).

26. **Phyllachora topographica** Sacc. sp. n. — Stromatibus hypophyllis, innato-erumpentibus, punctiformibus, orbiculari-angulosis, vix $^1/_2$ mm. diam., convexulis, nigris, hinc inde in insulas angulosas (topographiæ urbium ad instar) dense collectis, paucilocularibus, ostiolis obsoletis; ascis biformibus, nunc cylindraceis 50-60 × 8, nunc clavatis 41-50 × 12, breve stipitatis, 8-sporis; sporidiis monostichis v. distichis, subglobosis, 7-10 × 7-8,5, e mutua pressione subinde angulosis, sæpeque transverse positis, hyalinis. 2555

Hab. in foliis adhuc vivis Fici sp., Lankok Tonkin, Sept. 1888.

27. **Phyllachora valsispora** Rehm, Hedw. 1897, p. 371. — Stromatibus in centro macularum orbicularium, plerumque epiphyllarum, ferruginearum, 0,5-1 mm. diam. innatis, convexis, nigris, nitidis, plerumque 1-3-locularibus, 0-5 mm. diam., subcarbonaceis; ascis cylindraceis v. subfusiformibus, teneris, apice rotundatis, usque ad 110 × 12, octosporis; sporidiis oblongis, obtusis, rectis, 1-cellularibus, monostichis, 15-18 × $4^1/_2$; paraphysibus filiformibus. 2556

Hab. ad folia viva coriacea Oleandri-formia, Brasilia (Ule).

28. **Phyllachora tonkinensis** Sacc. sp. nova. — Stromatibus epiphyllis, minutis, innato-erumpentibus, hinc inde dense gregariis, orbicularibus v. angulosis, convexulis, atris, $^1/_2$-1 mm. diam., pauci-locularibus, ostiolis obsoletis; ascis cylindraceis, 75 × 9 v. cylindraceo-clavulatis, 50 × 18, octosporis, breve stipitatis; sporidiis ellipsoideis, monostichis v. distichis, sæpe transverse positis, subinde e mutua pressione angulosis, intus granulosis, hyalinis, 12-15 × 9; paraphysibus obsoletis. 2557

Hab. in foliis languidis v. emortuis plantæ ignotæ, Tu-Phap Tonkin, Dec. 1887 (B. Balansa).

29. **Phyllachora Tonduzii** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 161. — Maculis flavescentibus, parum distinctis; stromatibus amphigenis, innatis, sparsis, orbicularibus v. ovatis, 1-4-locularibus, loculis interdum prominentibus, superficie tenuiter granulosa; ascis late fusoideis, sessilibus, 8-sporis, 72-108 × 20-28; paraphysibus guttulatis, ramosis; sporidiis distichis v. conglobatis, ellipticis, unicellularibus, 25-27 × 7-10, hyalinis, nubilosis, guttulatis, deinde fuliginosis (?). 2558

Hab. in foliis ignotis, Costa-Rica.

30. **Phyllachora Timbo** Rehm, Hedw. 1897, p. 371. — Stromatibus 2559

gregariis, hypophyllis, innatis, convexulis, hemisphæricis, atris, subcarbonaceis, 1-locularibus, poro haud conspicuo, 0,3-0,4 mm. diam.; ascis fusoideis, 8-sporis, 75 × 12; sporidiis oblongis, rotundatis, 1-cellularibus, guttulis 2 magnis oleosis præditis, hyalinis, mono- vel distichis, 15-18 × 5-6; paraphysibus filiformibus.

Hab. in foliis sub nomine « Timbo » cognitis, Paraguay (Balansa).

31. **Phyllachora flavocincta** Rehm, Hedw. 1897, p. 370. — Stromatibus epiphyllis in foliorum pagina inferiore orbiculatim dispositis, 32- mm. latis, denigratis et in centro interdum flavescente semiglobosis, basi tenuissime colore flavo tinctis, atris, nitentibus, 1-1,2 mm. diam., 1-3-locularibus, poro minutissimo pertusis; ascis clavatis vel subfusiformibus, rotundatis, 100-110 × 12-15, octosporis; sporidiis oblongis, obtusis, 1-cellularibus, guttulis oleosis minutissimis repletis, hyalinis, 12-14 × 5-6, mono-vel distichis; paraphysibus filiformibus. 2560

Hab. in foliis arboris ignotæ pr. Tubarao Brasiliæ (Ule).

32. **Phyllachora costaricensis** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 160. — Hypophylla; stromatibus superficialibus, semiorbicularibus, pulvinatis, atris, nitentibus, tenuissime granulatis, $^3/_4$ mm. diam., unilocularibus, sparsis v. confluentibus, in macula sulfurea parum diffusa; ostiolo nullo; ascis octosporis, cylindraceis, clavatis v. parum deformibus, 90-108 × 15-35, breviter pedicellatis; paraphysibus simplicibus, flexuosis; sporidiis ovoideis, di-tristichis, continuis, hyalinis, nubilosis, demum flavescentibus, 21-25 × 10-14, tenui strato hyalino obvolutis. 2561

Hab. in foliis languidis indeterminatis, Costa-Rica. — *Ph. brasiliensi* Speg. affinis.

33. **Phyllachora? Yuccæ** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 440. — Stromatibus gregariis, ellipticis v. oblongis, $^1/_2$-1 $^1/_2$ × $^1/_2$ mm. subseriatis, matrice innatis, epidermide nigrificata tectis; loculis 80-90 μ. diam., demum confluentibus; ascis oblongo-cylindraceis, sursum attenuatis, aparaphysatis, 50-60 × 7-8, granulis v. nucleis oleosis repletis; sporidiis maturis nondum visis. 2562

Hab. in foliis Yuccæ angustifoliæ, Mexico (Egeling).

34. **Phyllachora viridulocincta** Rehm, Hedw. 1897, p. 372. — Stromatibus in maculis orbicularibus, dilute viridulis vel flavidulis, epiphyllis innatis, semiglobosis, plerumque 1-locularibus, 0,3-0,5 mm. diam.; ascis cylindraceis, rotundatis, 8-sporis, 75 × 9; sporidiis ellipticis, utrinque acutatis, 1-cellularibus, hyalinis, monostichis, 12-14 × 6; paraphysibus hyalinis. 2563

Hab. in foliis Aroideæ cujusdam pr. Sao Francisco Brasiliæ (Ule).

35. **Phyllachora Renealmiæ** Rehm, Hedw. 1897, p. 373. — Stromatibus epiphyllis, innatis, folio in hypophyllo fuscidule maculato, suborbicularibus, atris, planis, 2–4 mm. diam., loculis 10–20 immersis, ostiolo papilloso prominentibus; ascis clavatis, 8-sporis; sporidiis fusiformibus, 1-cellularibus, guttulis oleosis repletis, hyalinis, distichis, 18–20 × 7–8. 2564

Hab. in foliis Renealmiæ pr. S. Catharina Brasiliæ (Ule).

36. **Phyllachora Caricis** (Fr.) Sacc.-Syll. II, p. 625. — Var. **brasiliensis** Rehm, Hedw. 1897, p. 373. — Stromatibus parenchymati haud mutato innatis, globulosis vel linearibus, 0,1–0,2 mm. diam., nigris, vix tuberculatis; ascis clavatis, usque 50 × 12; sporidiis ellipticis, 12 × 4½. 2565

Hab. in foliis Cyperaceæ cujusdam, Brasilia (Ule).

37. **Phyllachora silvatica** Sacc. et Speg. Syll. II, p. 603. — Forma **brasiliensis** Rehm, Hedw. 1897, p. 374. — Stromatibus suborbicularibus, 0,5-1 mm. diam.; sporidiis 18 × 6–7. 2566

Hab. in foliis Gramineæ cujusdam pr. Itajahy Brasiliæ (Ule).

38. **Phyllachora scanica** Starb. Hedw. 1895, p. (162). — Ascis cylindraceis, apice rotundatis, 75-100 × 12, octosporis; sporidiis ellipticis, unicellularibus, strato mucoso tenui obvolutis, hyalinis, dein luteolis, intus granulosis, 12 × 6, monostichis; paraphysibus ramulosis. 2567

Hab. in foliis vivis graminum in Suecia.

39. **Phyllachora cordobensis** Rehm, Hedw. 1897, p. 374. — Stromatibus gregariis, amphigenis, innatis, sublinearibus, 1-4 mm. longis, 0,5 mm. latis, atris, multiloculariibus, minutissime punctulatis; ascis cylindraceis, 8-sporis, 70 × 10; sporidiis ovatis vel ellipticis, 1-(?demum 2) cellularibus, guttulis oleosis repletis, hyalinis, monostichis, 12 × 5–6; paraphysibus filiformibus. 2568

Hab. in foliis Gramineæ cujusdam, Argentina (Hieronymus).

40. **Phyllachora Chusqueæ** P. Henn. et Lind. Hedw. 1897, p. 224. — Stromatibus epiphyllis, pulvinatis, oblongis, plerumque nervos sequentibus et longitudinaliter confluentibus, atris, nitidis; ascis subclavatis vel subfusoideis, breviter stipitatis, apice subacutiusculis, octosporis, 65-90 × 14-20; paraphysibus filiformibus 1½ μ. crassis; sporidiis subdistichis, oblongis v. subfusoideis utrinque subacutiusculis, hyalinis, 15-19 × 7-8, intus granulatis. 2569

Hab. in foliis Chusqueæ spec. pr. Concepcion in Chile (Neger).

— *Phyllachoræ stenosporæ* (B. et Br.) Sacc. affinis.

41. **Phyllachora Tricholænæ** P. Henn. Engl. Jahrb. XXIII, p. 541. 2570
— Stromatibus gregariis v. sparsis interdum confluentibus, pulvinatis, oblongis, atris, nitentibus, plerumque 0,5 mm. longis; ascis clavatis, stipitatis, apice obtusis, 8-sporis, 45-65 × 14-18; sporidiis ellipsoideis, distichis v. subconglobatis, levibus, utrinque obtusis, 11-14 × 6-8.

Hab. in foliis Tricholænæ roseæ in Usambara, Afr. or. (Buchwald).

42. **Phyllachora Olyræ** Rehm, Hedw. 1897, p. 374. — Stromatibus 2571
gregariis, epiphyllis, folio late rufidulo, in centro macularum in hypophyllo linea circulari signatarum, in medio atropunctatarum, orbicularium innatis, atris, convexis, colliculosis, 1-1,2 mm. diam., 1-2-locularibus, subcarbonaceis; ascis cylindraceis, 8-sporis, 50 × 7; sporidiis ellipticis, 1-cellularibus, hyalinis, monostichis, 9-10 × 4½; paraphysibus filiformibus.

Hab. in foliis Olyræ, Brasilia (Ule).

43. **Phyllachora Boutelouæ** Rehm, Hedw. 1897, p. 373. — Stromatibus 2572
amphigenis, innatis, oblongis, atris, 2 mm. longis, 1 mm. latis, plurilocularibus, membranaceis; ascis cylindraceis, rotundatis, 8-sporis, 90 × 9; sporidiis oblongis, obtusis, 1-cellularibus, guttulis oleosis minutissimis repletis, hyalinis, monostichis, 10 × 7; paraphysibus filiformibus.

Hab. in foliis Boutelouæ curtipendulæ var. aristosæ, Argentina (Lorentz).

44. **Phyllachora graminis** (Pers.) Fckl.-Sacc. Syll. II, p. 602. — Var. 2573
panicicola P. Henn. Fungi camerun. I, in Engl. Jahrb. XXII, 1895, p. 80. — Stromatibus sparsis v. confluentibus, striiformibus, amphigenis, atro-brunneis, opacis; ascis cylindraceo-clavatis, 8-sporis, 86-100 × 10-12; sporidiis oblique monostichis, ellipsoideis, hyalinis, subgranulatis, 11-14 × 7-8.

Hab. in foliis Panici, Kamerun. (Jungner).

45. **Phyllachora cornispora** Atk. Bull. Cornell Univ. III. n. 1, 2574
1897, p. 11. — Stromatibus vix a *Ph. graminis* recedens, ascis cylindraceis v. clavatis, 50-70 × 10-15; sporidiis mono- vel distichis, longe ovatis, apice latiore appendicula recta v. curvula munitis, 14-17 × 5-7.

Hab. in foliis vivis Panici agrostoidis, Auburn, Alabama Amer. bor.

46. **Phyllachora Cynodontis** (Sacc.) Syll. II, p. 602. — Var. **Chloridis** 2575
P. Henn. Pilz. Ostafr. p. 34. — Ascis oblongis v. clavatis, obtusis, 8-sporis, 40-50 × 7-10; sporidiis oblongis v. subfusoideis, hyalino-subflavescentibus, guttulatis, oblique monostichis v. conglobatis, 8-11 × 5-6.

Hab. in foliis Chloridis in Africa trop. (Holst).

47. **Phyllachora diplocarpa** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, 2576
p. 292; *Homostegia diplocarpa* Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 135. — Stromatibus subcuticularibus, nigris, convexis subellipticis, 1-2 mm. diam.; cellulis fertilibus minutis subseriatim dispositis, stylosporas varias generantibus, aliis minutis, suballantoideis, hyalinis, 5-7 × 1½, aliis cylindraceis, guttulatis, dein 3-septatis, 14-23 × 4-4½, hyalinis, demum subolivaceis.

Hab. in culmis Distichlidis maritimæ, Kansas Amer. bor. (Bartholomew). — Dubia quia asci nondum cogniti.

48. **Phyllachora Hieronymi** P. Henn. Pilz. Ostafr. p. 34. — Stroma- 2577
tibus epiphyllis, gregariis, pulvinato-elevatis, nigro-nitentibus, circ. 0,5 mm. diam.; ascis cylindraceo-clavatis, 8-sporis, vix stipitatis, 50-75 × 15-21; sporidiis plerumque distichis, oblongis, granulatis, hyalino-flavescentibus, 18-26 × 5-7.

Hab. in foliis Cyatheæ Dregei in Africa trop.

49. **Phyllachora fructicola** P. Henn. in Hedw. 1897, p. 236, syn. 2578
Ph. fructigena P. Henn. in Syll. XI, p. 372 nec (Schw.) Sacc. in Syll. II, p. 622.

50. **Phyllachora tenuissima** Sacc. et Syd. Sic dicenda est *Phyllachora tenuis* Speg. in Syll. IX, p 1009, quum exstet anterior *Ph. tenuis* (Berk.) Sacc. in Syll. II, p. 599.

51. **Phyllachora Spegazzinii** Sacc. et Syd. Sic nominanda est *Phyllachora dispersa* Speg. in Syll. IX, p. 1015, quum exstet anterior *Ph. dispersa* (Schw.) Sacc. in Syll. II, p. 617.

52. **Phyllachora rhytismoides** (Chev. 1826) Sacc. Syll. II, p. 608, equidem anterior et diversa est ab homonyma Cordæ 1840, Sacc. Syll. II, p. 594, sed cum sit adhuc valde dubia nomina non mutanda.

53. **Phyllachora Winteri** Sacc. et Syd. Ita nuncupanda *Ph. Xanthoxyli* Wint. 1887, Syll. XI, p. 370. nec homonyma (Lév.) Cooke 1884, Syll. IX, p. 1010.

54. **Phyllachora Ambrosiæ** (Schw.) Sacc. Syll. II, p. 620, teste Cooke Grev. XIII, p. 43, in Herb. Berk. est sterilis et non genuina *Phyllachora;* hinc *Phyll. Ambrosiæ* (B. et C.) Sacc. Syll. II. p. 601 extare debet.

EURYACHORA Fuck. — Syll. II, p. 625, IX, p. 1030.

1. **Euryachora liberica** Oud. Konink. Akad. Wetensch. Amsterdam 1897, p. 231, cum fig. — Stromate tenuissimo, valde extenso, internodia ambiente, corpori lignoso applicato, diu celato, tandem, strato corticali frustulatim delapso, exposito, extus et intus nigro, loculos plurimos inordinate distributos, nunc sporulis, tunc vero ascis repletos fovente; locellis tum sporuliferis quam asciferis, punctula alba in fundo nigro sistentibus, ubi lamina tenuissima ex superficie stromatis apta cultro tollitur; sporulis fusiformibus, hyalinis, continuis, utrinque acutiusculis, protoplasmate exilissime granuloso repletis, 16 × 5; ascis breve et late clavatis, sursum membrana crassiuscula præditis summoque apice poro extus clauso munitis, 80-90 × 15-17; paraphysibus nullis; sporidiis distichis, continuis, hyalinis, utrinque acutiusculis, protoplasmate exilissime granuloso repletis, 14 × 6. 2579

   Hab. in ramis Coffeæ libericæ in Java.

OXYDOTHIS Penz. et Sacc. Malpighia XI, 1897, p. 505 (Etym. *oxys*, acutus et *Dothis* pro *Dothidea*, ob sporidia acuta). — Stromata innata, applanata, nigricantia v. grisea, tenuia, plerumque a matrice mutata formata, intus monostiche pauci-v. plurilocularia, loculis semi membranaceis, ostiolo punctiformi instructis. Asci tereti-elongati, paraphysati, octospori. Sporidia elongato-fusoidea, continua, utrinque acutissima, fere cuspidata, plurinucleata, hyalina. — Dignoscitur tenuitate stromatis et sporidiorum forma. Ad Valseas quoque nutat.

1. **Oxydothis grisea** Penz. et Sacc. Malpighia XI, 1897, p. 505. — Stromatibus dense gregariis, ovato-oblongis, convexulo-applanatis, extus et intus griseis, nitidulis, 0,5-1 mm. long., loculis in quoque stromate 4-8, globoso-oblongis, 150-200 μ. diam., in collum subinde productis; ostiolis punctiformibus, non emergentibus; contextu celluloso, olivaceo-fuligineo, ostioli prosenchymatico; ascis tereti-clavatis, tenuiter paraphysatis, apice rotundatis, subsessilibus, 180 × 13-15, octosporis; sporidiis subdistichis, fusiformibus, utrinque sensim oblique cuspidatis, acutissimis, 75-80 × 8, plurinucleatis, hyalinis. 2580

   Hab. in culmis elatioribus, Tjibodas, ins. Java. — Sæpius in extremo margine stromatum conspicitur ostiolum unum ex loculo obliquato oriundum.

2. **Oxydothis nigricans** Penz. et Sacc. Malpighia XI, 1897, p. 505. 258

— Stromatibus dense gregariis, applanatis, intus et extus nigricantibus, opacis, oblongis, sæpe confluentibus, intus monostiche pauciloculariibus, 0,5-0,7 mm. long., loculis globulosis, 0,3 mm. diam., ostiolis perexiguis; ascis tereti-clavatis, apice obtusatis, breve stipitatis, 150 × 9-10, filiformi-paraphysatis, octosporis; sporidiis subdistichis, fusoideis, rectis curvulisve, utrinque cuspidatis, acutissimis, 75 × 7, plurinucleatis, hyalinis.

Hab. in spatha emortua inflorescentiæ Ptychospermæ, in silvis, Tjibodas, ins. Java.

3. **Oxydothis maculosa** Penz. et Sacc. Malpighia XI, 1897, p. 506. 2582
— Stromatibus innatis, applanatis, nigricantibus, nitidulis, 5-8 mm. long., intus multiloculariibus; loculis subrotundis, 0,3 mm. diam.; ostiolis perexiguis, non emergentibus; ascis tereti-fusoideis, apice obtusiusculis, breve stipitatis, 160 × 12, octosporis; sporidiis subdistichis, anguste fusoideis curvulis, utrinque sensim cuspidatis, 75-80 × 5, plurinucleatis, hyalinis.

Hab. in petiolis emortuis Palmarum in Horto bot. Bogoriensi, ins. Java. — Species tres vere affines, sed forma et colore stromatis facile distinguendæ.

Sect. 2. Phæosporæ.

AUERSWALDIA Sacc. — Syll. II, p. 626, XI, p. 374.

1. **Auerswaldia nectrioides** Rehm, Hedw. 1897, p. 375. — Stroma- 2583
tibus plerumque hypophyllis, in maculis orbicularibus, rufescentibus, 0,5-1 mm. diam. innatis, semiglobosis, fuscidule farinaceis, carnosis, 0,5 mm. diam.; peritheciis 1-2, immersis, fuscidule parenchymatice contextis, elongatis, mollibus, circiter 120 μ. longis et latis, poro conspicuo apertis; ascis fusoideis v. cylindraceis, 8-sporis, ca. 40 × 8-9; sporidiis ellipticis v. subclavatis, 1-cellularibus, hyalinis, dein fuscidulis, mono-distichis, 10-12 × 4-5.

Hab. in foliis vivis Paullinieæ pr. Sao Francisco Brasiliæ (Ule).

2. **Auerswaldia densa** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, 2581
p. 162. — Epipylla; stromate applanato, elongato, 5-7 × 3 mm. sæpe confluente, aterrimo, nitido, circulo ferrugineo circumdato; loculis prominentibus, parum numerosis, fere superficiem totam folii infestante; ascis cylindraceis, membrana fugacissima, 110 × 12;

sporidiis fuligineo-olivaceis, oblongis, ellipticis, 14-17 × 7 1/2, monostichis.

Hab. in foliis coriaceis, copiose, Costa-Rica.

Sect. 3. Didymosporæ.

DOTHIDELLA Speg. — Syll. II. p. 627, IX, p. 1036, XI, p. 375.

1. **Dothidella Vismiæ** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 162. — Epiphylla; stromate orbiculari, applanato, 1/2-2 mm. innato, in totam texturam folii penetrante, circulo ferrugineo cincto; loculis minutis, numerosis, mediocriter prominulis; ascis 8-sporis, fusiformibus, subpedicellatis, 90—125 × 12-14; paraphysibus filiformibus, flexuosis; sporidiis fusiformibus, distichis v. submonostichis, 1-septatis, haud constrictis, 18-22 × 5-7, hyalinis v. chlorinis.

Hab. in foliis Vismiæ, Costa-Rica.

2. **Dothidella Osyridis** (Cke.) Berl. et Vogl. - Sacc. Syll. IX, p. 1038. — ***D. Tassiana** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 69, t. VII, fig. 6. — A typo speciei differt stromatibus ampnigenis nec tantum epiphyllis; sporidiis non ovatis sed oblongo-clavulatis, 12-15 × 6, nec 12 × 6; ascis fusoideo-oblongis, subsessilibus, apice rotundatis, 40-45 × 10-12, aparaphysatis.

Hab. in foliis Pappeæ capensis in capite Bonæ-Spei. — Loculi stromatis 45-50 μ. diam., pallidi; sporidia ad tertium inf. septata, non vel vix constricta, ex hyalino dilutissimè chlorina.

3. **Dothidella Machærii** Rehm Hedw. 1897, p. 377 — Stromatibus in maculis orbicularibus, dilutissime fuscidulis innatis, hypophyllis, irregulariter in centro macularum aggregatis, colliculosis, atris, nitentibus, 0,5-2 mm. diam., loculis 2-10, poro minutissimo apertis; ascis late fusiformibus, sessilibus, 8-sporis, 45 × 15, sporidiis oblongis, obtusis, 2-cellularibus, haud constrictis, guttulis oleosis minimis repletis, hyalinis, distichis, 12 × 6.

Hab. in foliis Machærii pr. Rio de Janeiro Brasiliæ (Ule).

4. **Dothidella evanescens** Rehm, Hedw 1897, p. 375. — Stromatibus epiphyllis, folio haud mutato innatis, orbicularibus, applanatis, verruculosis, opacis, nigris, 3 mm. diam., loculis pluribus immersis; ascis clavatis, crasse tunicatis, sessilibus, 8-sporis, 90 × 30; sporidiis clavatis, 2-cellularibus, medio subconstrictis, cellula inferiore multo angustiore, hyalinis, distichis, 20 × 8; paraphysibus subramosis.

Hab. in foliis Myrtaceæ cujusdam pr. Tubarao Brasiliæ (Ule).
— *D. myrticolæ* affinis, sed sporidiis majoribus differt.

5. **Dothidella Cucurbitacearum** Rehm, Hedw. 1897, p. 376. — Stro- 2589
matibus plerumque hypophyllis, gregariis, innatis, bullosis, irregulariter orbicularibus, nigris, mollibus, 2-4 mm. diam., plurimis loculis, ostiolis haud perspicuis; ascis ovoideis, apice rotundatis et valde incrassatis, 8-sporis, 40-50 × 9-10; sporidiis clavatis, obtusis, 2-cellularibus, hyalinis, distichis, 10-12 × 3 ½; paraphysibus distinctis.

Hab. in foliis Cucurbitaceæ cultæ pr. Blumenau et Rio de Janeiro Brasiliæ (Ule).

6. **Dothidella Haplopappi** Rehm, Hedw. 1897, p. 377. — Stromatibus 2590
gregariis, epiphyllis, innatis, hypophyllo haud mutato, lenticularibus, atrofuscis, minutissime punctulatis, loculis pluribus immersis, 0,5-1 mm. diam.: ascis fusiformibus, crasse tunicatis, 8-sporis, 70 × 15; sporidiis fusiformibus, 2-cellularibus, medio subconstrictis, distichis, hyalinis, 27-30 × 6; paraphysibus conglutinatis.

Hab. in foliis Haplopappi pr. Serra Geral, Minas Geraës Brasiliæ (Ule).

7. **Dothidella ametableta** Rehm Hedw. 1897, p. 376. — Stromatibus 2591
ellipticis, per corticem longitudinaliter fissum erumpentibus, convexis, atrofuscis, minutissime conoideo-papillulatis, 2-10 mm. longis, 2-3 mm. latis et altis; loculis plurimis stromati fusco immersis, arcte constipatis; ascis subcylindraceis, apice rotundatis, 8-sporis, 75 × 9; sporidiis fusoideis, acutatis, 2-cellularibus, medio vix constrictis, utraque cellula guttulis oleosis 2 minutis prædita, hyalinis, distichis, 15-17 × 4; paraphysibus filiformibus.

Hab. in ramulis Baccharidis. Pedras Grandes Brasiliæ (Ule).
— *D. tinctoriæ* affinis.

8. **Dothidella Adenocalymmatis** P. Henn. Hedw. 1895, p. 323. — Stro- 2592
matibus hypophyllis, sparsis, superficialibus, pulvinatis, applanatis, gibbosis v. papilloso-rugosis, atris, rotundatis v. oblongis, 1-1 ½ mm. diam., loculis immersis numerosis, rotundatis, pallidis; ascis cylindraceo-clavatis, apice obtusis, subpedicellatis, paraphysatis, octosporis, ca. 60-75 × 11-15, sporidiis mono- vel distichis, oblongis, oblongo- ovoideis v. subfusiformibus, hyalinis, guttulatis, dein medio uniseptatia, haud constrictis, 10-14 × 4-5 ½; paraphysibus filiformibus, hyalinis, 2-3 μ. crassis.

Hab. in foliis Adenocalymmatis paulistarum in Brasilia.

9. **Dothidella Glaziovii** Allesch. et P. Henn. Hedw. 1897, p. 236. — 2593
Stromate longe et late effuso, epiphyllo, tumescenti, nigro, sæpe confluenti et folium totum occupanti, loculis numerosis, immersis, prominulis; ascis subclavato-cylindraceis, aparaphysatis, 8-sporis, 60-80 μ. longis, 10-12 μ. crassis; sporidiis subdistichis vel in parte inferiore asci oblique monostichis, obpiriformibus, in parte attenuata 1-septatis, subhyalinis vel luteolis, ca. 10-14 μ. longis, 6-7 μ. crassis.

Hab. in foliis emortuis Tecomæ spec. pr. Goyaz Brasiliæ (Glaziou).

10. **Dothidella effusa** A. L. Smith. Journ. of Bot. 1895, p. 343. — 2594
Stromatibus epiphyllis, folii totam superficiem obtegentibus; peritheciis rotundatis, confertis, extus fuligineo-nigris, usque ad 240 μ. diam.; ascis cylindraceo-clavatis, 90-120 × 20; sporidiis fuscis, ellipticis, utrinque obtusiusculis, 1-septatis, 22 × 8.

Hab. ad folia Asclepiadis in Africa orient. (Elliot)

11. **Dothidella longissima** (Pers.) Ell. et Ev. *Sphæria longissima* Pers. 2595
Syn. p. 31, Proc. Acad. Philad. 1895, p. 427. — Peritheciis dense gregariis, subiculo tenui nigro strias formante insidentibus, minutis, subprominentibus, non confluentibus, epidermide nigrificata primitus velatis; striis longissimis, parallelis, angustis, 1-1 $^1/_2$ mm. latis, ab uno caulis nodo ad alterum porrectis; ostiolis inconspicuis v. minute papilliformibus; ascis oblongis, 40 × 7-9, subsessilibus, paraphysatis; sporidiis distichis, oblongis, uniseptatis, vix constrictis, obtusis, hyalinis, 12-15 × 3 $^1/_2$.

Hab. in caulibus Chenopodii albi, Kansas, Amer. bor.

12. **Dothidella Renealmiæ** Rehm, Hedw. 1897, p. 377. — Stromatibus in maculis flavidulis epiphyllis, innatis, lenticularibus, atris, colliculosis, 2-4 mm. diam., in hypophyllo vix visibilibus; loculis hemisphærice protuberantibus, haud papillatis, 0,3 mm. latis; ascis fusiformibus, apice rotundatis, usque ad 90 × 15, octosporis; sporidiis subclavatis, obtusis, æqualiter 2-cellularibus, hyalinis, distichis, 18-20 × 5; paraphysibus subramosis. 2596

Hab. in foliis Renealmiæ, Sierra Org. Brasiliæ (Ule).

13. **Dothidella smilacicola** Rehm, Hedw. 1897, p. 375. — Stromatibus epiphyllis, lenticularibus, adnatis, in centro convexulis, subverruculosis, atris, carbonaceis, 1-1 $^1/_2$ mm. diam.; loculis pluribus minimis; ascis oblongo-clavatis, sessilibus, apice rotundatis incrassatisque, 8-sporis, 50-55 × 15-18; sporidiis clavatis, obtusis, 2-cellularibus, hyalinis, 15-17 × 4-5; paraphysibus filiformibus. 2597

Hab. in foliis Smilacis, Brasilia (Ule).

14. **Dothidella scirpina** Rehm, Hedw. 1897, p. 377. — Stromatibus 2598
gregariis, innatis, ellipticis, atris, 0,2-0,3 mm. diam., loculis nonnullis præditis; ascis fusoideis, sessilibus, 8-sporis, 50 × 9; sporidiis clavatis, 2-cellularibus, medio haud constrictis, hyalinis, distichis, 12 × 4; paraphysibus filiformibus.

Hab. in foliis Scirpi, Serra Geral Brasiliæ (Ule).

15. **Dothidella fallaciosa** Rehm, Hedw. 1897, p. 377. — Stromatibus 2599
amphigenis, gregarie in maculis dilute flavescentibus innatis, punctiformibus, singularibus vel 2-5 irregulariter confertis, atris, mollibus, 200-300 μ. diam.; ascis oblongis, rotundatis, sessilibus, 8-sporis, 50 × 8-9; sporidiis fusiformibus, acutis, 2-cellularibus, haud constrictis, quaque cellula guttulis 1-2 oleosis prædita, hyalinis, distichis, 15 × 3 1/2; paraphysibus filiformibus.

Hab. in foliis Gramineæ cujusdam in Brasilia (Ule).

SCIRRHIA Nits. — Syll. II, p. 634, IX, p. 1040, XI, p. 376.

1. **Scirrhia Sporoboli** Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 9. 2600
— Stromate 1-3 mm. longo, 1/5-1/2 mm. lato, angusto, nigro, intus albido, erumpente; loculis minutis, 120-150 μ., rostro brevi prominulo præditis; ascis clavatis, deorsum in pedicellum exilem attenuatis, 50-70 × 8-9, paraphysibus filiformibus obvallatis; sporidiis distichis, fusoideis, inæquilateralibus, 1-septatis, hyalinis, granulosis, 12-16 × 3-4.

Hab. in culmis Sporoboli asperi, Auburn, Alabama Amer. bor.

2. **Scirrhia bambusina** Penz. et Sacc. Malpighia XI, 1897, p. 506. 2601
— Stromatibus gregariis, longitrorsum seriatis, erumpentibus, nigris, particulis matricis fissæ sæpe conspersis, oblongis, 0,5-0,7 mm. long., convexulis, intus 3-5-locularibus, loculis globulosis, 0,2 mm. diam., pallidioribus, ostiolis perexiguis; ascis tereti-clavatis, brevissime stipitatis, apice rotundatis, filiformi-paraphysatis, octosporis, 75-80 × 9-10; sporidiis distichis v. oblique monostichis, fusoideis, utrinque obtuse attenuatis, medio 1-septatis, leviter constrictis, 24-26 × 4-4,5, hyalinis, farctis.

Hab. in culmis emortuis Bambusæ, in Horto bot. Bogoriensi, ins. Java.

3. **Scirrhia lophodermioides** Ell. et Ev. Bull. Torr. Bot. Club. 1895, 2602
p. 435. — Stromatibus anguste ellipticis v. linearibus, 1/2-2 mm. longis, interdum confluentibus et 1/2-1 cm. metientibus, epidermi-

dem erumpentibus finde utibusque, nigris; loculis globosis, 150-200 μ. diam., monostichis; ostioliis inconspicuis; ascis oblongis, sessilibus, 80-90 × 20-22, octosporis, sporidiis conferto-distichis, cylindraceis, deorsum curvulis, uniseptatis (*l*), viridulo-hyalinis, 35-40 × 7-8.

Hab. in culmis emortuis graminum in ins. Sandwich (Heller).

PLOWRIGHTIA Sacc. — Syll. II, p. 635, IX, p. 1041, XI, p. 376.

1. **Plowrightia pseudohypoxylon** Rehm, Hedw., 1897, p. 378. — Stromatibus gregariis, in foliis amphigenis et ramulicolis, sessilibus, lenticularibus v. irregulariter elongatis, convexis, cinereo-farinosis intus flavidulis, subcoriaceis, papillulis minutissimis atris exasperatis, 3-10 mm. longis, 3-6 mm. latis altisque; loculis minutis, 150 μ. diam., gregariis, peripheric is; ascis elongatis, rotundatis, sessilibus, octosporis, usque ad 60 × 12; sporidiis oblongis, obtusis, rectis v. subcurvatis, bicellularibus, haud constrictis, hyalinis, 12-15 × 3 ½-4; paraphysibus indistinctis. 2603

Hab in foliis ramulisque Myrtaceæ cujusdam pr. Rio de Janeiro, Brasilia (Ule).

2. **Plowrightia Diplothemii** Rehm, Hedw. 1897, p. 378. — Stromatibus gregariis, amphigenis, erumpentibus, hemisphæricis vel irregulariter tuberculosis, atris, 1 mm. diam., carbonaceis; loculis 2-3 immersis; ascis subclavatis, apice rotundatis, stipitatis, teneris, usque ad 130 × 24, octosporis; sporidiis ellipticis, subacutis, 2-cellularibus, haud constrictis, quaque cellula guttulis oleosis magnis 1-2 prædita, hyalinis, distichis 20 × 7; paraphysibus filiformibus. 2604

Hab. in foliis Diplothemii littoralis, Paraguay (Balansa).

3 **Plowrightia irregularis** (Otth) Sacc. Hedw. 1896, p. XXXIII, *Dothidea irregularis* Otth, Bern. Mittheil. 1870, p. 102. — Gregaria v. sparsa, erumpens, protuberans, ½-1 mm. diam., tuberculiformis v. disciformis, intus et extus nigra, subtiliter scabrida; loculis minutissimis, peripheric is; cetis clavatis, 8-sporis; sporidiis oblongis, hyalinis, bilocularibus, constrictis, 19-22 × 8, loculo sup. multo majore, conico-acutato. 2605

Hab. in ramis Ribis floridi in horto bot. Bern., Helvetia. — Certe a *Pl. ribesia* non separanda.

DOTHIDEA Fr. — Syll. II, p. 639, IX, p. 1043, XI, p. 377.

1. **Dothidea forniculata** Otth, Bern. Mittheil. 1870, p. 102. — Stromatibus dense gregariis, erumpentibus, disciformibus, ¾-1 ¼ mm. diam. nigris, impolitis, maturitate demum extenuatis, convexis, sub- 2606

tus concavis; loculis numerosis minutissimis, intus cinereis, ostiolis nullis conspicuis; ascis breve clavatis, octosporis; sporidiis oblongis, obovoideis, bilocularibus, anisomeris, 19 × 6, flavidis; paraphysibus nullis.

Hab. in ramis Mori albæ in horto bot. Bern, Helvetia. — Sec. cl. Jaczewski est *D. Sambuci*.

2. **Dothidea Porlieriæ** Rehm, Hedw 1897, p. 379. — Stromatibus gregariis, epiphyllis, sessilibus, orbicularibus, applanatis, scabriusculis, fusco-nigris, mollibus, 0,2-0,5 mm., contextu parenchymatico fusco; loculis pluribus immersis, poro minutissimo apertis ascis elongatis, crasse tunicatis, sessilibus, 8-sporis, 66 × 15; sporidiis fusiformibus, acutatis, rectis, 2-cellularibus, hyalinis, demum flavidulis (an demum 4-cellularibus?), distichis, 25-30 × 4 1/2. 2607

Hab. in foliis Porlieriæ Lorentzii pr. Cordoba Argentinæ (Hieronymus).

3. **Dothidea Alyxiæ** Massee, Journ. of Bot. 1896, p. 152. — Stromate convexo, nigro, subepidermico; loculis cæspitosis (8-12), confluentibus, nigris, nitentibus, glabris, 2-3 mm. diam., ostiolis magnis; ascis subcylindraceis, apice rotundatis, in pedicellum brevem attenuatis, octosporis. 100 × 11-12; sporidiis obliquo monostichis, ellipticis, utrinque obtusis, 1-septatis, brunneis, hyalinis, 18 × 10, loculis æqualibus; paraphysibus nullis. 2608

Hab. in foliis vivis Alyxiæ buxifoliæ, Tasmania.

4. **Dothidea Emmoti** P. Henn. Hedw. 1895, p. 323. — Ascomatibus pulvinatis, rotundatis v. oblongis, sæpe nervos sequentibus oblongatisque, hypophyllis, atro-cinereis, primo tomentosis; peritheciis subglobosis, atris, carbonaceis, ostiolis prominulis; ascis clavatis, subsessilibus, apice obtusis, octosporis, 50-70 × 18-21; sporidiis oblongis v. subovoideis, distichis v. subconglobatis, medio uniseptatis, haud constrictis, primo subhyalinis, deinde flavo-fuscescentibus, 12-16 × 6-7, paraphysatis. 2609

Hab. in foliis Emmoti nitentis pr. Meiaponte Brasiliæ (Ule).

5. **Dothidea Anthurii** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 163. — Amphigena; stromate sparso, applanato, orbiculari; ascis cylindraceis v. cylindraceo-claviformibus, 90-130 × 10-12; paraphysibus indistinctis; sporidiis subfusoideis, diu hyalinis, deinde leviter fuliginosis, monostichis v. subdistichis, obscure 1-septatis, 18-20 × 5 1/2. 2610

Hab. in foliis Anthurii scandentis, Costa-Rica.

6. **Dothidea maculicola** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 162. — Stromate atro, pruina cinerea obducto, suborbiculari v. elliptico, 1-3-loculari, circulo flavo-brunneo irregulari limitato, in texturam totam folii penetrante; ostiolo in facie superiore folii erumpente; ascis octosporis, cylindraceis, sessilibus, 72 × 10 1/2; paraphysibus filiformibus; ascis longioribus; sporidiis monostichis, oblongis, fuligineis, utrinque rotundatis, 1-septatis, 7,2 × 3,6. 2611

Hab. in foliis plantæ indeterminatæ, Costa-Rica.

MONTAGNELLA Speg. — Syll. II, p. 646, IX, p. 1045, XI, p. 377.

1. **Montagnella Colletiæ** P. Henn. et Lind. Hedw. 1897, p. 226. — Stromatibus per corticem erumpentibus, oblonge pulvinatis, ca. 1-1 1/2 cm. longis, 2 mm. crassis, atris, opacis, rugulosis, dein rimosis; peritheciis immersis, subglobosis vel oblongis; ascis cylindraceo-clavatis, apice obtusis, basi angustioribus, interdum curvatis, 90-110 × 14–17; sporidiis subdistichis, cylindraceis, curvulis, utrinque obtusiusculis, medio 1-septatis, haud constrictis, hyalinis, 30-40 × 4-4 1/2. 2612

Hab. in ramis et cladodiis Colletiæ spinosæ pr. Concepcion in Chile (Neger).

2. **Montagnella Fici** P. Henn. Hedw. 1897, p. 226. — Stromatibus epiphyllis, gregariis, minutis, hemisphæricis vel subglobosis, atris, rugulosis, 200-250 μ. diametro; ascis oblongis vel subclavatis, 8-sporis, apice obtusis, breve stipitatis, 45-55 × 9-10; sporidiis subdistichis, oblongis subfusoideis, curvulis, 1-septatis, haud constrictis, hyalino-flavescentibus, 18–20 × 4-5. 2613

Hab. in foliis Fici genuinæ pr. Pozuzo Peruviæ.

3. **Montagnella Astrocaryæ** Rehm, Hedw. 1897, p. 379. — Stromatibus gregariis, epiphyllis, in utraque folii pagina dilute flavescente innatis, plerumque lenticularibus, interdum lineariter confluentibus, atris, subcarbonaceis, 1-3 mm. diam., loculis 2-3 immersis; ascis ellipticis, crasse tunicatis, rotundatis, basi tenuiter stipitatis, usque 120 × 27, octosporis; sporidiis ellipticis, acutatis, episporio crasso, 4-cellularibus, cellulis mediis multo majoribus, demum ad septa constrictis, strato mucoso involutis, 21-24 × 7-9, distichis; paraphysibus filiformibus, hyalinis, 3 μ. crassis. 2614

Hab. in foliis Astrocaryæ pr. Rio de Janeiro in Brasilia.

4. **Montagnella bicincta** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 163. — Stromate amphigeno, orbiculari, atro, nitente, ruguloso, 3-8 mm. diam., in totam texturam folii penetrante, intus ferru- 2615

ginoso, duobus circulis concentricis circumdato, interno ferrugineo, externo subrubro; loculis 10-16; ascis 8-sporis, fusoideis v. claviformibus, sessilibus, 90-96 × 12-15; paraphysibus flexuosis, guttulatis, haud bene distinctis; sporidiis cylindraceo-fusoideis, hyalinis v. chlorinis, primo continuis, deinde triseptatis, 10-14 × 3 $^1/_2$; spermogoniis cylindraceo-fusoideis, rectis, continuis, hyalinis, 7,2-7,5 × 2,5, in acervulum ceraceum flavum exsilientibus.

Hab. in foliis plantæ indeterminatæ, Costa-Rica.

Sect. 4. Phragmosporæ.

DANGEARDIELLA Sacc. et Syd. noy. gen. (Etym. a P. A. Dangeard, de fungorum bio-morphologia meritissimo) *Monographi* sp. Schröt. — A *Monographo* differt imprimis sporidiis elongatis, pluri-(6-8-) cellularibus.

1. **Dangeardiella macrospora** (Schröt.) Sacc. et Syd. *Monographus macrosporus* Schroet. Kryptog. Flora v. Schlesien. 1897, p. 477. — 2616
Stromatibus lanceolatis v. elliptico-lirellæformibus, epidermide tectis, atro-nitidis; peritheciis paucis, globosis; ascis cylindraceis, 120-150 × 15-17, apice rotundatis, in stipitem brevem acutatis, octosporis; sporidiis distichis, fusiformibus, curvulis v. vermicularibus, 66-75 × 8-10, utrinque valde angustatis, sed obtusis, medio leniter constrictis. 6-8-cellularibus, hyalinis.

Hab. in stipitibus emortuis Athyrii alpestris in Silesia.

HOMOSTEGIA Fuck. — Syll. II, p. 649, IX, p. 1049.

1. **Homostegia rhoina** Ell et Ev. Erythea 1897, p. 5. — Stroma- 2617
tibus epiphyllis, sphæroideis, gregariis, $^1/_4$-$^1/_3$ mm. diam., prominentibus, sed epidermide nigrificata, apice rupta arcte tectis; cellulis ascigeris 2-5 in quoque stromate, sphæroideis, intus albis, 80-120 μ. diam.; ascis oblongo-clavatis, breve stipitatis, 60 70 × 12-14; paraphysibus filiformibus, numerosis, sæpe supra curvulis; sporidiis distichis, oblongo-fusoideis, 4-septatis, ad septum medium constrictis, hyalinis, subobtusis, 15-18 × 3 $^1/_2$-4 $^1/_2$.

Hab. in foliis emortuis Rhois integrifoliæ, socio *Didymosporio rhoino*, California.

2. **Homostegia coscinodisca** Ell. et Ev. Proc. Acad. Philad. 1835, 2618
p. 427. — Stromatibus erumpenti-superficialibus, discoideo-pulvinatis, $^1/_2$-$^3/_4$ mm. diam., supra 6-8-ies perforatis, sed nullo promi-

nente ostiolo: cellulis circiter 75 μ. diam., tenuiter subhyalino-tunicatis; ascis oblongis, subsessilibus, 55-60 × 12-15, aparaphysatis, 4-8-sporis; sporidiis plerumque distichis, ellipticis v. oblongis, 18-22 × 8-10, 3-septatis, ad septa constrictis, utrinque obtusis, hyalinis, medio secedentibus.

Hab. in cortice Betulæ, Newfoundland Amer. bor. (Waghorne). — *H. durissimæ* affinis.

Sect. 5. Dictyosporæ.

CURREYA Sacc. — Syll. II, p. 651, IX, p. 1051, XI, p. 378.

1. **Curreya sandicensis** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 135. 2619
— Stromatibus hypophyllis, globosis, 1-1 $^3/_4$ mm. diam., erumpentibus, griseo-nigris; cellulis ascigeris minutis, globosis, peripherieis v. subpolystichis, stromate ostiolis punctiformibus minutis, atris erumpentibus adsperso immersis; ascis oblongo-obovatis, basi abrupte in stipitem brevem contractis, 8-sporis; sporidiis irregulariter confertis, cylindraceo-oblongis, 3-5-septatis, 1 vel 2 cellulis septo longitudinali percursis, flavis, 19-22 × 6-8, ad septa non constrictis.

Hab. in foliis vivis Alphitoniæ ponderosæ in ins. Sandwich. (Heller). — Stromata hypophylla in pagina aversa deprdssiones minutas obscure coloratas efficientia.

2. **Curreya rimosa** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 280. — 2630
Stromatibus erumpenti-superficialibus, tuberculoso-hemisphæricis v. sæpius hysteriiformiter elongatis, 1-2 mm. longis, $^1/_2$ mm. latis, supra applanatis, minute asperulis, nigris, immaturis in sicco rubescentibus ac transverse rimosis; cellulis ascigeris globosis, minutis; ascis obovatis, 75-80 × 40-45, subsessilibus, paraphysatis, octosporis; sporidiis conferte distichis, obovato-oblongis, leniter curvulis, flavis, utrinque obtuso-rotundatis, initio 3-, demum 5-7-septatis muriformibusque, 30-40 × 15-20.

Hab. in ligno sicco Arctostaphyli tomentosæ, California.

Sect. 6. Scolecosporæ.

MYRIOGENOSPORA Atk. Bull. Torr. Bot. Club. 1894, p. 225 (Etym, *myria* magna copia, *gennao* gigno et *spora*). — Stroma effusum, carbonaceum, pulvinatum. Perithecia immersa cum stromate confluentia, conferta, vix prominula. Asci cylindracei polyspori. Sporidia elongato-bacillaria continua, hyalina.

1. **Myriogenospora Paspali** Atk. l. c. — Stromate 1-2 cm. longo; 2621
peritheciis magnis, 200-300 μ. diam., ovalibus v. obovatis, vix prominulis, apice minuto, conico; ascis 200-250 × 15-20, utrinque elongato-angustatis; sporidiis numerosissimis, anguste apiculatis, 15-25 × 0,5-0,8, fusoideis, rectis v. leniter curvulis.

Hab. in culmis juvenilibus Paspali levis, Alabama Amer. bor.

OPHIODOTHIS Sacc. — Syll. II, p. 652, IX, p. 1051.

Ophiodothis Ulei Rehm, Hedw. 1897, p. 380. — Stromatibus am- 2622
phigenis, plerumque hypophyllis, sessilibus, maculis folii exsiccati orbicularibus, albescentibus, 3 mm. latis, centro innatis, suborbicularipus, colliculosis, nigris, 2 mm. diam., loculis 5-10 immersis; ascis cylindraceis, rotundatis, sessilibus, 8-sporis, 75 × 9; sporidiis filiformibus, guttulatis, asci longitudine, 2 μ. crassis, hyalinis, parallelis: araphysibus nullis.

Hab. in foliis Leguminosæ cujusdam pr. Rio de Janeiro Brasiliæ (Ule).

2. **Ophiodothis Gaduæ** Rehm, Hedw. 1896, p. 53. Stromatibus di- 2623
spersis, primo immersis, dein emergentibus et sessilibus, lentiformibus, fusco-nigris, subscabris, coriaceis, 1-2 mm. lat. et alt.; loculis permultis, parenchymaticis, subhyalinis polystiche immersis, globulosis, usque ad 150 μ. diam.; ascis cylindraceis, apice rotundatis atque valde incrassatis, ca. 120 × 5, 8-sporis; sporidiis filiformibus, rectis, 1?-cellularibus, hyalinis, parallele positis, asci longitudine; paraphysibus nullis.

Hab. in ramulis Gadnæ spec. Campo Bello Brasiliæ (Ule). —

Ophiodothis linearis Rehm, Hedw. 1896, p 54. — Stromatibus 2624
singularibus v. gregariis, linearibus, rectis, sessilibus, 1-4 cm. longis, 1 mm. latis, extus intusque atris, superficie vix papillulatis, ab epidermide folii lenuissime flavida marginatis, loculis minutis-

simis; ascis cylindraceis, apice valde incrassatis et rotundatis, usque ad 75 × 7, 8-sporis; sporidiis filiformibus, rectis, continuis, hyalinis, 60 × 1, parallele positis; paraphysibus nullis.

Hab. in foliis vivis Chusqueæ, Campo Bello Brasiliæ (Ule).

4. **Ophiodothis rhaphidospora** Rehm, Hedw. 1897, p. 380. — Stromatibus linearibus, foliis involutis innatis, elongatis, 1-3 cm. longis, 0,1-0,15 cm. latis, albo-farinaceis, contextu fusco, loculis multis immersis, poro minimo apertis; ascis cylindraceis, 300 × 6-7; sporidiis filiformibus, multicellularibus, in cellulas singulas 10 × $1^1/_2$ secedentibus, hyalinis, quaque cellula biguttulata; paraphysibus filiformibus (?). 2625

Hab. in foliis Gramineæ cujusdam in Brasilia (Ule).

5. **Ophiodothis Aristidæ** Atk. Bull. Torr. Bot. Cl. 1894, p. 224. — Stromate dimorpho; parte sterili confluente, effusa, tenui, nigra, caulem omnino ambiente, fertili crassiore, confluente v. interrupta, apicibus peritheciorum gregariorum rugulosa v. convoluta; ascis sporidiisque ut in *Oph. voraci.* 2626

Hab. in culmis, quos interdum ambit, Aristidæ purpurascentis, Amer. bor. — Pro hac specie et pro *Hypocrella. Hypoxylo (= Ophiodothis vorax)* cl. Atkinson condidit genus *Dothichloë.* Cfr. l. c. ubi et *Hypocrella tuberiformis* in nov. gen. *Echinodothis* erigitur.

Fam. 5. Microthyriaceæ Sacc.

Subfam. 1. Microthyrieæ Sacc. et Syd.

Perithecia typice subiculo nullo inserta.

Sect. 1. Hyalosporæ.

MYIOCOPRON Speg. — Syll. II, p. 659, IX, p. 1053, XI, p. 379.

1. **Myiocopron affine** Penz. et Sacc. Malpighia XI, 1897, p. 525. — Peritheciis dense gregariis, superficialibus, discretis, subinde binatis, nigris, dimidiato-scutatis, convexo-applanatis, 330-350 μ. diam., centro pertusis, radiato-cellulosis, margine subintegris; ascis ovato-oblongis, breve et abrupte stipitatis, 45-50 × 18-22, aparaphysatis, apice obtusulis, octosporis; sporidiis tristichis, oblongo-soleæformibus, utrinque rotundatis, sursum crassioribus, continuis, 15 × 7, granulosis, hyalinis. 2627

Hab. in foliis v. bracteis Monocotyledonis (?) Tjikeumeuh, ins. Java. — Sequenti, *M. Palmarum, M. corrientino* etc. affine, sed satis distinctum, præcipue formâ sporidiorum.

2. **Myiocopron millepunctatum** Penz. et Sacc. Malpighia XI, 1897, p. 524. — Peritheciis longe et late denseque gregariis, superficialibus, dimidiato-scutatis, applanatis, 300 μ. diam., centro pertusis, nigris, membranaceis, anguste radiato-cellulosis, margine sinuoso-crenatis; ascis oblongis, sessilibus, utrinque rotundatis, 45-50 × 15, non v. spurie paraphysatis, octosporis; sporidiis subdistichis, elliptico-oblongis, rectis, utrinque rotundatis, continuis, 18 × 6-7, ex hyalino flavidis, granulosis. 2628

Hab. in utraque pag. foliorum Psiloti flaccidi languidorum in Horto bot. Bogoriensi Javæ. — Affine *M. Palmarum* W. et *M. corrientino* Speg.; sed sat diversum.

3. **Myiocopron fecundum** Sacc. Fl. mycol. Lus. p. 69. — Peritheciis amphigenis inæqualiter sparsis, superficialibus, atris, applanatis, circularibus, 0,7 mm. diam., poro rotundo 45 μ. diam. pertusis, contextu radiante atro, prope marginem sinuoso-celluloso; ascis amplis, elongatis, brevissime stipitatis, 180-200 × 25-28, apice rotundatis, 12-sporis; paraphysibus copiosis sed tenuissime filiformibus; sporidiis 2-3-stichis tereti-elongatis, utrinque rotundatis, curvulis, 30-36 × 8-10, continuis granulosis, hyalinis. 2629

Hab. in foliis subvivis Craterispermi, S. Thomé, sociis lichenibus et bryaceis tenellis quibusdam (Moller).

Sect. 2. Didymosporæ.

MICROTHYRIUM Desm. — Syll. II, p. 662, IX, p. 1055, XI, p. 379.

1. **Microthyrium Mangiferæ** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 164. — Maculis nullis; peritheciis epiphyllis, congestis, 140-180 μ. diam., dimidiato-scutatis, orbicularibus, olivaceo-atris, centro pertusis, contextu radiante; ascis clavatis, sessilibus, 8-sporis, 108 × 18, vel ovoideis 46 1/2 × 21; sporidiis hyalinis, oblongo-ellipticis, uniseptatis, 14 1/2 × 6 monostichis (in ascis claviformibus), conglobatis (in ascis ovoideis). 2630

Hab. in foliis Mangiferæ indicæ, Costa-Rica.

2. **Microthyrium concatenatum** Rehm, Hedw. 1895, p. (102). — Subiculo tenuissimo, cinereo-atro, epiphyllo, orbiculariter 3-10 mm. diam. expanso, velutino, ex hyphis reticulatim cohærentibus et coa- 2631

litis, valde flexuosis, rectangulariter sæpe ramosis, 5 μ. crassis, fuscis, septatis et perithecia conjungentibus obtegentibusque contexto; peritheciis numerosis, dimidiato-lenticularibus, tenuissime radiatim prosenchymatice contextis ambituque denticulatis, fusco-olivaceis, 180-300 μ. diam., poro minutissimo pertusis; ascis oblongis, crassis, 80-90 × 30, octosporis; sporidiis clavatis, medio septatis, cellula superiore eximie guttulis minutissimis repleta, inferiore acutata vacua, vix medio constrictis, hyalinis, 21-27 × 10-11, distichis; paraphysibus ramosis. Jodi ope cellula superior sporidiorum flavescit.

Hab. in foliis Myrtaceæ cujusdam in Brasilia (Ule).

3. **Microthyrium Psychotriæ** Massee, Journ. of Bot. 1896, p. 152. — 2632
Peritheciis sparsis, hypophyllis, orbicularibus, discoideis subplanis, levibus, atro-brunneis, opacis, 100-125 μ. diam.; ostiolis distinctis, prominulis; ascis clavatis, breve stipitatis, 45-50 × 6-7, octosporis; sporidiis irregulariter distichis, hyalinis, levibus, anguste clavatis, prope medium 1-septatis, 7-8 × $2^1/_2$-3.

Hab. in foliis vivis Psychotriæ subpunctatæ, in Africa occidentali tropica.

4. **Microthyrium Jochromatis** Rehm, Hedw. 1895, p. (162). — Peri- 2633
theciis epiphyllis, densissime circinatim maculiformiter congregatis, sessilibus, orbicularibus, dimidiato-scutatis, semiglobosis, rugulosis, parenchymaticis, cellulis centrifugo modo radianribus compositis, macularum diam. 1-4 mm.; ascis crassis, clavatis, apice rotundatis, lata basi sessilibus, 50-60 × 18, octosporis; sporidiis clavatis, superne acutatis, bicellularibus, quaque cellula guttula oleosa plerumque 1 magna instructis, cyalinis, 12-14 × 6-7; paraphysibus nullis.

Hab. ad folia Jochromatis macrocalycis, Prov. de Pichincha Æquatoriæ (Lagerheim).

5. **Microthyrium Cetrariæ** Bres. Malpighia XI, 4897, p. 62 extr. — 2634
Peritheciis dense gregariis, punctiformibus, superficialibus, cellulis radiato-dispositis contextis, 75-105 μ. diam., ambitu sæpe lobatis, centro osculo subtriangulari pertusis; ascis oblongo-clavatis v. subfusoideis, 45-59 × 12; sporidiis hyalinis oblongo-subcurvulis, uniseptatis, vix constrictis, conglobatis, 15-18 × 3.

Hab. in thallo Cetrariæ islandicæ in Italia bor. (Carestia).

CLYPEOLUM Speg. — Syll. p. II, p. 667, IX, p. 1061, XI, p. 380.

1. **Clypeolum megalosporum** Speg. Rev. Agr. y Veter. La Plata, 1896, 2635

p. 343. — Peritheciis epiphyllis, sparsis, dimidiato-scutatis, applanatis, majusculis, 0,5-0,8 mm. diam., atris, margine non fimbriatis, astomis, centro irregulariter dehiscentibus, membranaceis, contextu eximie minuteque muriformi, cellulis ambitu sæpius uniguttulatis; ascis globosis v. ovatis, 50-55 × 40-45, sessilibus, crassiuscule tunicatis, pseudoparaphysibus coalescentibus immersis, 8-sporis; sporidiis e cylindraceo subclavulatis, 30-34 × 8-9, utrinque obtusiusculis, non v. leniter arcuatulis, medio 1-septatis, non constrictis, hyalinis; mycelio nullo.

Hab. in foliis languidis Coffeæ arabicæ, Costa-Rica.

SEYNESIA Sacc. — Syll. II, p. 668, IX, p. 1064, XI, p. 381.

1. **Seynesia Balansæ** Speg.-Sacc. Syll. IX, p. 1065. — Var. **Ildefonsiæ** 2636
Rehm, Hedw. 1895, p. (101). — Subiculo tenuissimo, atro, sæpissime epiphyllo, orbiculariter 1-2 mm. late expanso, velutino, ex hyphis brevibus, simplicibus, vix ramosis, septatis, 3-5 μ. crass., fuligineis composito; peritheciis sparsis, hemisphærico-dimidiatis, 100-120 μ. diam., tenuiter membranaceis, parenchymate radiante contextis, fusco-olivaceis, ostiolo minutissimo pertusis, 16 ascos gerentibus; ascis ovalibus vix stipitatis, 25-30 × 18, octosporis; sporidiis oblongo-clavatis, obtusis, medio 1-septatis, vix constrictis, hyalinis, dein fuscis, quaque cellula nucleo oleoso magno prædita, 10-17 × 5; paraphysibus paucis, ramosis.

Hab. in foliis vivis Ildefonsiæ bibracteatæ in Brasilia (Ule).

2. **Seynesia rimosa** Pat. Bull. Soc. Myc. de Fr. 1895, p. 230. — 2637
Maculis nullis; peritheciis epiphyllis, orbicularibus vel sinuatis, atris, $^1/_2$-1 mm. diam., applanatis, centro elevato, levibus v. minute striatis, sæpe circulariter ruptis; nucleo albido; ascis aparaphysatis, claviformibus, 80-90 × 16-20, octosporis; sporidiis diu hyalinis, ovatis, utrinque obtusis, medio septatis, fuscis, 16-20 × 6.

Hab. in foliis indeterminatis in Æquatoria (v. Lagerheim).

3. **Seynesia disciformis** Pat. Bull. Soc. Myc. de Fr. 1895, p. 230. 2638
— Maculis amphigenis, orbicularibus, 3-4 mm. diam., fuscis; peritheciis epiphyllis, atris, lenticularibus, 3 mm. diam., margine sinuato, contextu ceraceo, melleo-olivaceo; ascis aparaphysatis, dense et parallele stipatis, apice obtusis, 100 × 20, crasse tunicatis, 8-sporis; sporidiis ellipticis, 1-septatis, medio constrictis, 20 × 7, melleis, dein fuliginosis.

Hab. in foliis arboris ignotæ in Æquatoria (v. Lagerheim).

Sect. 3. Phragmosporæ.

MICROPELTIS Mont. — Syll. II, p. 669, IX, p. 1069, XI, p. 381.

1. **Micropeltis Leoniæ** P. Henn. Hedw. 1895, p. 323. — Peritheciis punctiformibus, epiphyllis, scutato-orbicularibus, applanatis, centro subpapilloso-rotundatis, atro-brunneis, ambitu tenui, pallidioribus, 300-350 μ. diam.; ascis clavatis, stipitatis v. subsessilibus, interdum curvulis, apice rotundato-obtusis, 35-48 × 16-23, octosporis; sporidiis longitudinaliter parallelis vel subconglobatis, fusoideis, rectis v. subcurvulis, 5-7-septatis, septis haud constrictis, hyalino-flavescentibus, 25-35 × 4-5. 263

   Hab. in foliis Leoniæ glycycarpæ in Peruvia.

2. **Micropeltis Harmsiana** P. Henn. Engl. Jahrb. XXIII, p. 540. — Peritheciis epiphyllis, sparsis v. gregariis, scutiformibus, atris, opacis, punctiformibus, 200-240 μ.; ascis aparaphysatis, subclavatis, apice tunicatis, basi subpedicellatis, curvulis, 8-sporis, 60-75 × 16-22; sporidiis distichis v. subconglobatis, clavatis v. subfusiformibus, 2-septatis, septis valde constrictis, 28-32 × 5-6, hyalinis. 264

   Hab. in foliis Deidamiæ triphyllæ in Camerunia (Zenker).

3. **Micropeltis Tonduzii** Speg. Rev. Agr. y Veter. La Plata 1896, p. 343. — Peritheciis sæpius epiphyllis, sparsis, dimidiato-scutatis, applanatis, majusculis, 250-500 μ. diam., atris, margine integris, zona subhyalina angusta cinctis, astomis centro radiatim dehiscentibus, membranaceis, centextu parum distincto prosenchymatico-radiante, mycelio destitutis; ascis cylindraceis v. obclavulatis, 100 × 18-20, basi brevissime noduloseque stipitatis, dense paraphysatis, 8-sporis; sporidiis oblique monostichis, elliptico-clavulatis, 40-50 × 10-12, 7-septatis, ad septa leviter constrictis, loculis quinto et sexto superis crassioribus, hyalinis. 26

   Hab. in foliis vivis v. languidis Coffeæ arabicæ, Costa-Rica.

4. **Micropeltis leucoptera** Penz. et Sacc. Malpighia XI, 1897, p. 525. — Peritheciis epiphyllis sparsis, superficialibus, dimidiato-scutatis, convexo-planis, 180-200 μ. diam., nigris, centro obsolete pertusis, margine latiuscule albo-membranaceis; contextu minutissime sinuoso-celluloso; ascis crasse fusoideis, subsessilibus, apice obtuse attenuatis, 36-40 × 12-15, aparaphysatis, octosporis; sporidiis tristichis, tereti-clavulatis, apice rotundatis, incrassatis, 3-septatis, vix constrictis, 18-20 × 5, dilutissime chlorinis, hyalinis. 26

Hab. in pag. sup. foliorum coriaceorum Depok Javæ. — Affinis *M. albomarginatæ* Speg., sed omnibus partibus minor.

5. **Micropeltis macropelta** Penz. et Sacc. Malpighia XI, 1897, p. 525. 2643
— Peritheciis sparsis, epiphyllis, superficialibus, convexo-applanatis, dimidiatis, majusculis, nigris, 500-600 μ. diam., margine integris, vix membranaceis, contextu minutissime sinuoso-celluloso; ascis cylindraceis, breve stipitatis, apice rotundatis, 150-160 × 16, aparaphysatis, octosporis; sporidiis distichis, cylindraceis, curvulis, utrinque acutiusculis, 7-septatis, constrictis, 50-55 × 8, hyalinis, obsolete granulosis.

Hab. in foliis coriaceis, Depok Javæ, socia præcedente.

6. **Micropeltis zingiberaceicola** P. Henn. Engl. Jahrb. XXIII, p. 540. 2644
— Peritheciis epiphyllis, sparsis, orbiculari-scutatis, depressis, minutis, 1 mm. diam., atris, margine tenui; ascis subfusoideis v. oblongis, apice obtuso-rotundatis, basi subpedicellatis, curvatis, 8-sporis, 150-180 × 30-45; sporidiis subconglobatis, fusiformibus v. clavatis, hyalinis, 60-80 × 7-9, pluriguttulatis v. spurie 5-septatis.

Hab. in foliis Zingiberaceæ cujusdam in Camerunia (Staudt).

7. **Micropeltis Orchidearum** P. Henn. Engl. Jahrb. XXIII, 1897, 2645
p. 286. — Peritheciis minutis, scutellatis, orbicularibus, centro poro pertusis, margine tenui, atris, circiter 280-380 μ. diam.; ascis subclavatis vel subfusoideis, rectis vel curvulis, apice obtusis, vix stipitatis, 8-sporis, 40-60 × 10-13; sporidiis di-vel tristichis, fusoideis vel subclavatis, 3-5-septatis, hyalino-flavescentibus, 21-25 × 3-3 $^1/_2$.

Hab. in foliis et pedicellis Orchideæ cujusdam in ins. Upolu ins. Samoëns. (Reinecke).

GILLETIELLA Sacc. et Syd. (Etym. a mycologo gallico C. C. Gillet, Hymenomycetum illustratori peritissimo *)). *Heterochlamys* Pat. Bull. Soc. Myc. de Fr. 1895, p. 231, nec Turcz. — Stroma membranaceum, dimidiato-scutatum, pluri-pertuso-ostiolatum, microthyriaceum. Perithecia hypostromatica, contextu atro, coriaceo, sphæriaceo. Asci octospori. Sporidia 3-septata, hyalina. — A *Polystomella* sporidiis diversis recedit.

1. **Gilletiella Chusqueæ** (Pat.) Sacc. et Syd. *Heterochlamys Chusqueæ* 2646
Pat. l. c. — Stromatibus sparsis vel confluentibus, orbicularibus, atris, convexis, rugulosis, $^2/_3$-1 mm. diam.; peritheciis 1-6, poro

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*) Genus *Gilletia* Sacc. et Penz. (1882) congruit cum *Basidiophora* Roze et Cornu (1869). Cfr. *Plasmopara entospora* (Roz. et C.) Schröt., Syll. VII, p. 587.

pertusis; ascis clavatis, 80 × 10, octosporis; paraphysibus filiformibus, ramosis; sporidiis distichis, fusiformibus, elongatis, utrinque attenuatis, medio vix constrictis, hyalinis, 3-septatis, 20 × 5-6.

Hab. in foliis Chusqueæ in Æquatoria (v. Lagerheim).

Sect. 4. Dictyosporæ.

SACCARDINULA Speg. — Syll. IX, p. 1071.

1. **Saccardinula costaricensis** Speg. Rev. Agr. y Veter. La Plata, 1896, p. 344. — Peritheciis superficialibus, sparsis v. laxe gregariis, in vivo hemisphæricis, in sicco sæpius collapsis atque umbilicatis, 180-300 μ. diam., ostiolo parum manifesto perforatis, atris, glabris, membranaceo-rigidulis, contextu e cellulis minutis ellipticis subradiantibus efformato donatis, mycelio parco subpelliculoso ex hyphis dense intricato-ramosis, articulatis, articulis cylindraceis longiusculis 20 × 6, utrinque rotundatis non v. minute biguttulatis, fumoso-avellaneis composito insidentibus; ascis obovatis, 80 × 45, breviter crasseque stipitatis, aparaphysatis, 8-sporis; sporidiis conglobatis e cylindraceo ellipticis v. obovatis, rectis v. leniter inæquilateralibus, utrinque obtusiusculis, 30-32 × 10, horizontaliter 6-7-septatis, ad septa constrictulis, loculis sæpius septo altero longitudinali divisis, hyalinis, primo tunica mucosa vestitis, dein nudis. 2647

Hab. ad folia viva Coffeæ arabicæ, Costa-Rica.

Subfam. 2. **Asterineæ** Sacc. et Syd. *).

Perithecia subiculo radiatim effuso nigricante inserta.

Sect. 1. Hyalosporæ.

ASTERULA Sacc. — Syll. I, p. 47, IX, p. 375, XI, p. 354.

1. **Asterula cornicullariiformis** P. Henn. Hedw. 1897, p. 218. — Mycelio late effuso, compacto, ca. $^1/_2$ mm. crasso, tomentoso, subcrustaceo, atro, ramis repetite asteroideo-aculeatis, cornicullariiformibus; 2648

*) Præeuntibus mycologis nonnullis, typum *Asterina* et genera ex eodem nuper divulsa, in fam. Microthyriacearum nunc locamus, verum epicrisis nova facienda est, nam perithecia in multis non videntur dimidiata sed integra et tunc hæ species inter Perisporieas rectius servandæ sunt. Utinam epicrisim hanc perficiat cl. Gaillard!

peritheciis globosis, carbonaceis, 200-250 μ. diam.; ascis ellipsoideo-ovoideis v. oblongis, octosporis, 15-26 × 7-9; sporidiis ellipticis, bitulatis, hyalinis, continuis, 5-7 × $3\,^1/_2$-$4\,^1/_2$.

Hab. ad cortices arborum pr. Blumenau Brasiliæ (Möller).

2649 2. **?Asterula goyazensis** P. Henn. Hedw. 1895, p. 104. — Epiphylla, dense gregaria, rotundata, 1-2 mm. diam. vel confluens, atra; mycelio radiato-dendritico, repente, atro-fusco, filis ramosis, se ptatis, atris, 5-8 μ. diam.; peritheciis gregariis, minutis, subpulvinatis, rotundatis, levibus, ca. 70-100 μ. diam.; ascis subclavato-oblongis v. fusoideis, sæpe curvulis, stipitatis, octosporis, 18-23 × 6-8; paraphysibus filiformibus, hyalinis; sporidiis conglobatis, subfiliformibus, rectis v. curvulis, hyalinis, continuis, utrinque subapiculatis, 13-15 × $^1/_2$.

Hab. in pagina superiore foliorum coriaceorum fruticis ignoti in prov. Goyaz Brasiliæ (Ule).

Sect. 2. Phæosporæ.

ASTERONIA Sacc. — Syll. I, p. 47, ut subg.

2650 1. **Asteronia Sweetiæ** P. Henn. Hedw. 1895, p. 104. — Mycelio hypophyllo, brunneo-fusco, ramoso, septato, filis 8-11 μ. crassis; peritheciis gregariis, subglobosis, levibus, 110-130 μ. e cellulis parenchymaticis polyhedricis; ascis clavatis, ca. 30 × 12-15, octosporis; sporidiis distichis, ovoideis v. piriformibus, continuis, brunneis (immaturis?).

Hab. in foliis Sweetiæ spec. in prov. Minas Geraës Brasiliæ (Ule).

Sect. 3. Didymosporæ.

ASTERINA Lév. — Syll. I, p. 39, IX, p. 379, XI, p. 255.

2651 1. **Asterina Ellisii** Sacc. et Syd. *Asterina sphærelloides* Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 126. — Mycelio reticulato, fusco, maculas minutas, atras, suborbiculares, 1 mm. diam. formante, sæpe subconfluente; peritheciis mycelio insidentibus atris, ovato-globosis, papillatis, 80-90 μ. diam.; ascis oblongis, sessilibus, aparaphysatis, 30-35 × 10-12; sporidiis irregulariter biseriatis, piriformibus, uniseptatis, fuscis, haud constrictis, 10-12 × $3\text{-}3\,^1/_2$.

Hab. in foliis Clematidis persicæfoliæ in ins. Sandwicens. (Heller).

2. **Asterina asperulispora** Gaill. Bull. Soc. Mycol. de France XIII, 1897, p. 180, et in Pazschke, Fg. Europ. N. 4053. — Mycelio maculas carbonaceas, indeterminatas efficiente, ex hyphis dense intertextis, 8-9 μ. lat. composito; hyphopodiis numerosis, sessilibus, subglobosis, 7-9 × 8; peritheciis sparsis, carbonaceis, contextu radiato, ambitu hyphis sinuosis, adnatis cincto, 112-125 μ. diam.; ascis perfecte globosis, 75-80 μ. diam., octosporis; sporidiis ovoideo-ellipticis, intense brunneis, ad septum valde constrictis, spinulis numerosis, concoloribus, aculeatis conspersis, 42-45 × 20-24. 2652

Hab. ad paginam superiorem foliorum Ilicis indeterminatæ pr. Tubarao Brasiliæ (Ule).

3. **Asterina Colubrinæ** Ell. et Kels. Bull. Torr. Bot. Cl. 1897, p. 207. — Hypophylla; peritheciis sparsis superficialibus, discoideis, orbicularibus, griseo-nigris, 200-275 μ. diam., nullo distincto mycelio insidentibus; ascis obovatis breviter stipitatis, 18-21 × 14-15, aparaphysatis, octosporis; sporidiis irregulariter dispositis, clavatis, oblongis, uniseptatis, leniter constrictis, hyalinis, 7-8 × 2-2 $^1/_2$. 2653

Hab. in foliis Colubrinæ reclinatæ, St. Croix Indiæ occid.

4. **Asterina Salaciæ** Allesch. Hedw. 1897, p. 235. — Peritheciis superficialibus carbonaceis, globoso-depressis, margine radiato-fibrilloso, dense gregariis, astomis, atris, mycelio nigro insidentibus; ascis subglobosis vel ovoideis, 8-sporis, 30-35 μ. diam.; sporidiis oblongis, 1-septatis, constrictis, utrinque rotundatis, ca. 16-20 μ. longis, 6-8 μ. crassis, ex hyalino flavescentibus. 2654

Hab. ad folia Salaciæ spec. pr. Goyaz Brasiliæ (Glaziou).

5. **Asterina Schmideliæ** Gaill. Bull. Soc. Mycol. de France XIII, 1897, p. 181 et in Pazschke, Fg. Europ. N. 4055. — Mycelio maculas nigras, parum manifestas, indeterminatas efficiente, ex hyphis laxe intertextis, 7-8 μ. lat., brunneis composito; hyphopodiis numerosis, conicis, 8-10 × 8; peritheciis sparsis, oculo nudo conspicuis, atris, contextu radiato, ambitu hyphis adnatis sinuosis, fimbriatis, stellatim dehiscentibus, 120-150 μ. diam.; ascis subglobosis, superne incrassatis, 60 × 55, octosporis; sporidiis ovato-ellipticis, ad septum valde constrictis, intense brunneis, utrinque rotundatis, verruculis subhyalinis conspersis, loculis inæqualibus: superiore subgloboso, 18-20 × 15-18, inferiore basin versus attenuato, 14-15 × 13-14. 2655

Hab. ad paginam superiorem foliorum Schmideliæ cujusdam pr. Tubarao Brasiliæ (Ule).

6. **Asterina Vochysiæ** P. Henn. Hedw. 1895, p. 103. — Mycelio epiphyllo dendritico repente, sæpe confluente, tenuissimo, filis 265

atro-brunneis, ramosis, septatis, conidiiferis; peritheciis in mycelio gregariis, scutellatis, applanatis, atris, glabris, contextu parenchymatico, ambitu radiante, fimbriatulo, subvinoso, 50-75 μ. diam.; ascis oblongis v. subclavatis, sessilibus, utrinque obtusis, interdum subcurvulis, octosporis, 30–35 × 12–15; paraphysibus filiformibus, hyalinis; sporidiis oblongis v. subovoideis, medio septatis paulo-que constrictis, olivaceo-brunneis, dein atro-fuscis, 10-15 × 5–9.

Hab. in foliis Vochysiæ spec. in prov. Minas Geraës Brasiliæ (Ule).

7. **Asterina Caricarum** Rehm, Hedw. 1895, p. (161). — Peritheciis 2657
in maculis rotundis, epiphyllis, 2–4 mm. diam., tenuissimis, nigris, radiantibus circinatim singulariter sessilibus, semiglobosis, astomis, nigris, ca. 120 μ. diam., excipulo e radiantibus parallelis cellulis contexto; hyphis rectis, longis, fuscis, ca. 5 μ. latis, vix ramosis, hyphopodiis capitatis alternantibus, sæpe retrorsum flexuosis, cellula superiore 6–9 × 6; ascis ovalibus, crassis, 45 × 30, octosporis; sporidiis cuneiformibus, bicellularibus, nucleo 1 magno instructis, primitus hyalinis, dein fuscidulis, 18-20 × 9; paraphysibus non visis.

Hab. ad folia viva Caricæ spec. Prov. de Pichincha Æquatoriæ (Lagerheim). — *Asterinæ silvativæ* Speg. proxima.

8. **Asterina yucatanensis** Ell. et Ev. Field Columb. Mus. 1896, p. 285, 2658
t. IX, f. 1–5. — Amphigena sed plerumque epiphylla in maculis suborbicularibus indefinitis flavicantibus, 3-4 mm. diam.; peritheciis convexo-hemisphæricis, 110-130 μ. diam., subastomis, nigris, suboblongis, fibroso-contextis, mycelio reticulato nigro setulisque septatis brunneis plus minus copiosis, 50 × 3, margine fimbriatis; ascis oblongo-ellipticis, 40-50 × 20-25, breve stipitatis v. sessilibus, 8-sporis; sporidiis oblongo-ellipsoideis, medio 1-septatis et profunde constrictis, atro-brunneis, 20 × 8, loculis subglobosis.

Hab. in foliis viventibus Pterocarpi, Yucatan Amer. centr.

9. **Asterina Pittieri** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, 2659
p. 156. — Epiphylla; maculis atris fere totam superficiem folii operientibus, ex hyphis ramosis 18 μ. crassis formatis; hyphopodiis sessilibus, globulosis v. oblongis, 28 × 18; peritheciis applanatis, contextu radiato, in mycelio sparsis 126–150 μ.; ascis octosporis, globulosis, parum numerosis, 5–6 in quoque perithecio, membrana tenuissima, 32–47 μ.; sporidiis brunneis v. fuliginosis, oblongis, uniseptatis, in duos articulos disjunctis, 28-36 × 18-28.

Hab. in foliis Angelicæ mexicanæ, Costa-Rica.

10. **Asterina solanicoloides** Rehm, Hedw. 1896, p. (150). — Mycelio 2660

epiphyllo, plagulas orbiculares, sæpe confluentes, 2-5 mm. lat., fuscidulas formante ex hyphis rectangulariter ramosis septatis, fuscis, c. 5 μ. cr. cum hyphopodiis alternantibus, 2-cellularibus, rectis vel subcapitatis. 6 × 3 contexto; peritheciis sessilibus, globosis, permultis, parenchymatico-contextis, glabris vel interdum setis singularibus, rectis, simplicibus, apice curvatis, subhyalinis, 60 × 4 obsessis, 150-200 μ. diam.; ascis subglobosis, crassis, 50-60 × 30-40, 8-sporis, sporidiis oblongis vel subovatis, 2-cellularibus, medio valde constrictis, primitus hyalinis, demum subfuscis, 20-25 × 9-12.

Hab. ad folia viva Solani in Prov. Pichincha Æquatoriæ (Lagerheim). — Jodi ope asci cœruleo saturate tinguntur. Diversa ab *Asterina vaganti* Speg.

11. **Asterina goyazensis** P. Henn. Hedw. 1895, p. 104. — Amphigena; mycelio nudo oculo vix conspicuo, repente, atro, filis ramosis, septatis, atro-fuscis; peritheciis scutellato-depressis, sparsis in mycelio, atris, 250-300 μ. diam., ambitu radiato-reticulato; ascis late ellipsoideis v. ovoideis, octosporis (?); sporidiis conglobatis, oblongis, medio septatis constrictisque, utrinque obtuso-rotundatis, loculis æqualibus 1-guttulatis, 24-28 × 15-18. 2661

Hab. in foliis vivis Rubiaceæ cujusdam pr. Goyaz Brasiliæ (Ule).

12. **Asterina crustosa** B. et Cke.-Sacc. Syll. XI, p. 255. — var. **microspora** Pat. Bull. Soc. Myc. de Fr. 1895, p. 221. — Peritheciis minutis, epiphyllis; sporidiis minoribus, 15-20 × 10-12. 2662

Hab. in foliis Asclepiadis spec. in Æquatoria.

13. **Asterina globifera** Ell. et Ev. Bull. Torr. Bot. Club. 1895, p. 435. — Epiphylla; mycelio obscuro ex hyphis luteolo-hyalinis, prostratis, septatis ramosisque vel ex hyphis erectis, ascendentibus, moniliformibus, brunneis composito; peritheciis sparsis, ovatis, demum plus minusve depressis et collapsis, minutis, 100-200 μ. diam., astomis, membranaceis, primo cellulis luteolo-brunneis, globosis, 6-9 μ. diam., repletis; ascis obovatis v. subglobosis, 20-30 × 15-20, octosporis; sporidiis ellipticis, hyalinis, 15-20 × 8-10, medio constrictis, loculis globosis. 2663

Hab. in foliis Grevilleæ spec. in ins. Sandwicens.

14. **Asterina dubiosa** Bomm. et Rouss. Bull. Soc. bot. Belg. 1896, p. 157. — Epiphylla vel amphigena; peritheciis orbicularibus, depressis, poro pertusis, contextu radiato, 144-180 μ., in mycelio atro ramoso sparsis, 7,2 μ. crasso; hyphopodiis piriformibus, uniseptatis, 18 × 10,8; ascis piriformibus 36 × 14 v. subclaviformibus, 2664

50-54 ≈ 14, sessilibus, aparaphysatis; sporidiis hyalinis, conglomeratis, subclaviformibus, 3-guttulatis, inter duas superiores guttulas uniseptatis (deinde biseptatis?), 14 ≈ 5-6.

Hab. in foliis Piperaceæ cujusdam, Costa-Rica.

15. **Asterina Couepiæ** P. Henn. Hedw. 1895, p. 104. — Mycelio 2665
epiphyllo, effuso-membranaceo, atro, filis repentibus, ramosis, torulosis, atro-fuscis, 6-8 μ. crassis; peritheciis gregariis in mycelio scutellatis v. pulvinato-depressis, 150-200 μ. diam., ambitu mycelio radiato, reticulato circumdatis; ascis ovoideis v. suboblongis, sessilibus, 4-6-sporis (?), 30-45 ≈ 26-32; sporidiis conglobatis, oblongis subclavatis v. ovoideis, uniseptatis, ad septum constrictis, loculo superiore plerumque minore, obtuso, loculo inferiore longiore, 1-guttulatis, fuscis, 16-24 ≈ 8-13.

Hab. in pagina superiore foliorum Couepiæ spec. in prov. Goyaz Brasiliæ (Ule).

16. **Asterina hemisphærica** Gaill. Bull. Soc. Mycol. de France XIII, 2666
1897, p. 179. — Mycelio maculas nigras, indeterminatas, crustaceas efficiente ex hyphis longissimis, laxe intertextis, rufo-brunneis, 7-8 μ. lat. composito; hyphopodiis sessilibus, ovoideo-elongatis, superne rotundatis, distantibus, 12-14 ≈ 7-8; peritheciis oculo nudo conspicuis, 180-200 μ. diam., carbonaceis, hemisphæricis, contextu radiato, stellatim late dehiscentibus; ascis ovoideis, 80 ≈ 66, octoporis; sporidiis ellipticis, utrinque rotundatis, ad septum valde constrictis, brunneis, 46-48 ≈ 18-21.

Hab. ad paginam superiorem foliorum arboris ignotæ pr. Rio de Janeiro Brasiliæ (Glaziou).

17. **Asterina gibbosa** Gaill. Bull. Soc. Mycol. de France XIII, 1897, 2667
p. 180 et in Pazschke, Fg. Europ. N. 4054. — Mycelio maculas nigras, orbiculares efficiente, ex hyphis densissime intricatis, atro-brunneis, 8-9 μ. lat., composito; hyphopodiis raris, exilibus, unilateraliter expansis, scilicet gibbosis; peritheciis numerosis, atris, contextu radiato, stellatim dehiscentibus, 60-80 μ. diam.; ascis non visis; sporidiis oblongo-ellipticis, brunneis, superne rotundatis, inferne leniter attenuatis, loculis æqualibus, ad septum valde constrictis, 26-28 ≈ 11-13.

Hab. ad utramque paginam foliorum fruticis indeterminati pr. Tubarao Brasiliæ (Ule).

18. **Asterina calotheca** Pat. Bull. Soc. Myc. de Fr. 1895, p. 221. — 2668
Maculis orbicularibus, 1 cm. diam., superficialibus, sparsis aut confluentibus, atris, crustaceis; mycelio parcissimo, ex hyphis repen-

tibus, brunneis, ramosis, hyphopodiis destitutis, 4 μ. crassis composito; peritheciis dimidiatis, stellatim dehiscentibus, 300-400 μ. diam., ambitu filamentoso, contextu radiante, brunneo; ascis ovoideo-globosis, 80 × 40-50, crasse tunicatis, diffluentibus, ope jodii undique cœrulescentibus, 8-sporis, aparaphysatis; sporidiis ovoideis, levibus, diu hyalinis, dein fuscis, medio septatis constrictisque, utrinque obtusis, 28-32 × 15-16.

Hab. ad folia arborum sp. in Æquatoria (v. Lagerheim). — *A. monothecæ* affinis.

19. **Asterina tuberculata** Mc Alp. New S. Wales fung., 1897, p. 699, t. XXVI, (Proc. Linn. Soc. N. S. W.). — Hypophylla, folia omnino v. partim flavida reddens; maculis orbicularibus, nigris, gregariis, sæpe contiguis; hyphis rhizinoideis subhyalinis, septatis, ramosis, repentibus, 4–5,5 μ. cr.; hyphis brunneis crassioribus, ramosis, ramis ultimis tuberculiformibus, 6–7 μ. cr.; peritheciis membranaceis, suborbicularibus, 60-180 μ. diam., subinde oblongis, 260 × 140, depressis, radiatim contextis, brunneis; ascis ovoideis, 8-sporis, 60-80 × 40-50; sporidiis ellipsoideis, atro-brunneis, 1-septatis, leviter constrictis, 33-38 × 17-19. 2669

Hab. in foliis Geitonoplesii cymosi, Murwillumbah N. S. W. Australiæ (Baker).

20. **Asterina cubensis** Sacc. et Syd. Ita nuncupetur *Asterina megalospora* B. et C. (1868) Syll. I, p. 41, diversa ab. homonyma B. et C. (1862), Syll. I, p. 42.

ASTERELLA Sacc. — Syll. I, p. 42, IX, p. 393, XI, p. 256.

1 **Asterella Prosopidis** Ell. et Ev. Americ. Natur. 1897, p. 340. — Peritheciis gregariis v. sparsis, superficialibus, depresso-conicis, $^1/_2$ mm. diam., ostiolo nigro, nitido, subconico; ascis clavato-oblongis, 30-35 × 8-10, subsessilibus, octosporis; sporidiis distichis, fusoideis, hyalinis, uniseptatis, haud constrictis, subacutis, 12-14 × 4-4 $^1/_2$; paraphysibus firmis, linearibus. 2670

Hab. in cortice vivo Prosopidis dulcis pr. Monterey, Mexico (Egeling).

2. **Asterella Glaziovii** P. Henn. Hedw. 1897, p. 217. — Epiphylla; maculis rotundis, dein confluentibus; filis repentibus, ramosis, nigris; peritheciis orbicularibus, depressis, scutellatis, atris, 300-400 μ.; ascis clavatis, 60-80 × 15-25, apice tunicatis, rotundatis, basi substipitatis curvulis; sporidiis distichis, subclavatis vel subfusoideis, 2671

medio 1-septatis, constrictis, intus guttulatis, hyalino-flavescentibus dein fuscis, 17-24 × 7-8.

Hab. in foliis Myrtaceæ indeterminatæ pr. Goyaz Brasiliæ (Glaziou).

3. **Asterella Hakeæ** Mc Alp. Proc. of the Linn. Soc. of N. S. Wales, 1897, p. 37, tab. I, fig. 1-3. — Mycelio maculas nigras, amphigenas, distinctas v. confluentes varias, suborbiculares, plerumque $^1/_2$-$^2/_3$ cm. diam. v. confluendo majores efformante; hyphis mycelicis atro-brunneis, crasse tunicatis, septatis, nodulosis, ramosis, ramis erectis rigidisque, 7 $^1/_3$ μ. latis; peritheciis depresso-globosis, atro-brunneis, asperulis, margine fibrillis paucis adhærentibus ornatis, 200-380 μ. diam.; ascis clavato-obovatis, subsessilibus, apice rotundatis, octosporis, 35-40 × 22-24; sporidiis initio hyalinis, dein viridibus demumque brunneis, 2-3-stichis, ellipticis, uniseptatis, leniter constrictis, loculo superiore plerumque paululo latiore, 22 × 9. 2672

Hab. in foliis Hakeæ dactyloidis, pr. Sydney Australiæ (Maiden).

4. **Asterella microsphæroides** Rehm, Hedw. 1896, p. 52. — Peritheciis, mycelio prorsus deficiente, laxe in pagina inferiore foliorum sessilibus, dispersis, punctiformibus, atris, globosis v. lentiformibus, glabris, mollibus, extus minute fusco-granulosis, excipulo hyalino tenuissimo cinctis, 250 μ. diam.; ascis creberrimis, ovalibus, apice valde incrassatis, 21 × 12, octosporis, inter paraphyses hyalinas positis; sporidiis clavatis, 2-cellularibus, cellula inferiore interdum longiore, hyalinis, 8 × 2 $^1/_2$, irregulariter sitis. 2673

Hab. in pagina inferiore foliorum vivorum Leucothoës, Itatiaia Brasiliæ (Ule).

5. **Asterella bullata** (B. et C. sub *Asterina* [1868]) Sacc. Syll. I, p. 45. Observetur hanc speciem non esse *Asterinam bullatam* B. et C. [1862], Syll. I, p. 51, quæ adhuc dubia manet.

Sect. 4. Phragmosporæ

ASTERIDIUM Sacc. — Syll. I, p. 49, IX, p. 435, XI, p. 269.

1. **Asteridium Illicii** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 176. — Hypophyllum; mycelio nullo; peritheciis nigris, sparsis, orbicularibus, applanatis, membranaceis, parenchymaticis, non radiantibus, fragilibus, rugosis, 200-400 μ. diam.; ascis numerosis, 2674

suborbicularibus, 8-sporis, 30-40 μ.; sporidiis subpiriformibus, sæpe curvulis, granulosis, hyalinis, primo uniseptatis, demum 3-septatis.

Hab. in foliis vivis Illicii floridani, Mississippi, Amer. bor.

2. **Asteridium baccharidicolum** P. Henn. Hedw. 1897, p. 217. — 2675
Peritheciis sparsis singularibus, hypophyllis, globosis, mycelio rufo-fusco, ramoso, septato, filis 3-4 μ. crassis, ascis cylindraceis, clavatis, stipitatis, basi curvatis, apice obtusis, 40-60 × 7-11, octosporis; paraphysibus filiformibus; sporidiis subdistichis, flavo-fuscescentibus, 3-septatis, cylindraceo-fusoideis, utrinque subapiculatis, septis haud constrictis, 14-18 × 3-5.

Hab. in foliis Baccharidis triplinervis in prov. St. Catharina Brasiliæ (Moeller).

3. **Asteridium Esterhazyæ** Rehm, Hedw. 1896, p. 53. — Peritheciis 2676
in pagina foliorum superiore late fusco-nigrificata dense gregariis v. conglobatis, laxe sessilibus, globulosis, parenchymatice contextis, astomis, nigrofuscis, 60 μ. diam., mycelio hypharum simplicium, rectarum, raro denique ramosarum, septatarum, fuscarum, ½ μ. lat., insidentibus; ascis ellipticis v. piriformibus, superne incrassatis, late sessilibus, 30-35 × 10, 8-sporis; sporidiis subfusiformibus, rectis, 4-cellularibus, hyalinis, 14-15 × 2, irregulariter positis; paraphysibus teneris, ascos ambientibus.

Hab. in foliis vivis Esterhazyæ spec. Itatiaia Brasiliæ (Ule). — *A. Xerophylli* Ellis videtur affine, sed peritheciis atque sporidiis minoribus differt.

4. **Asteridium dothideoides** Ell. et Ev. Bull. Torr. Bot. Club. 1895, 2677
p. 436. — Peritheciis epiphyllis, sparsis v. laxe gregariis, sæpe 3-4 confluentibus, applanato-convexis, 300 μ. diam. v. elongatis hysteriiformibusque, 500 × 200; mycelio prostrato, radiato, subanastomosante ex hyphis brunneis, subcontinuis, 5 μ. crassis composito; hyphopodiis obovatis v. globosis, unicellularibus, circiter 7 μ. diam.; ascis obovatis, sessilibus, 30-40 × 18-21; sporidiis confertis, oblongo-ellipticis, circiter 20 × 7-8, sæpe leniter curvulis, obtusis luteolo-hyalinis, primo plerumque uniseptatis, demum brunneis, biseptatis, septis hyalinis.

Hab. in foliis Andromedæ ferrugineæ, Florida, Amer. bor. (Nash).

5. **Asteridium bicolor** Ell. et Ev. Erythea 1897, p. 5. — Maculis 2678
hypophyllis, orbicularibus, fere 2 mm. diam., brunneis, supra subnigris; peritheciis innato-erumpentibus, applanatis, supra subumbilicato-collabentibus; ascis oblongo-obovatis, breve stipitatis,

22-26 × 18-22; paraphysibus numerosis, filiformibus; sporidiis oblongo-fusoideis, fasciculatis, flavis, demum brunneis, 3-4-septatis, leniter constrictis, 18-20 × 6-7.

Hab. in foliis Arctostaphyli bicoloris in California.

6. **Asteridium novum** Fautr. et Lamb. Rev. Mycol. 1896, p. 142. — 2679
Peritheciis gregariis superficialibus, glabris, minutis, parenchymaticis, irregulariter pertusis, brunneo-nigris; ascis longe pedicellatis, usque ad 180 × 24, paraphysatis; sporidiis hyalinis, 3-septatis, 22-25 × 6.

Hab. in foliis putridis Phœnicis dactyliferæ in Gallia.

7. **Asteridium Chusqueæ** Rehm, Hedw. 1896, p. (150). — Mycelio 2680
hypophyllo, plagulas sparsas orbiculares, radiantes, 2-4 mm. lat. nigrofuscas, ex hyphis ramosis, septatis, fuscidulis, 3 μ. lat. contextas formante; peritheciis 2-6 conglomeratis, sessilibus, glabris, mollibus, parenchymatico-contextis, fuscis, 250 μ. diam.; ascis piriformibus, crassis, apice elongatis, 30-45 × 9-10, 8-sporis; sporidiis subclavatis, rectis, 2-4-cellularibus, in quaque cellula nucleum oleosum continentibus, albo-fuscidulis, 7-12 × 2,5-3, distichis; paraphysibus nullis.

Hab. ad folia viva Chusqueæ in Æquatoria (Lagerheim).

ASTERIDIELLA Mc Alp. Proc. of the Linn. Soc. of N. S. Wales, 1897, p. 38, tab. I, fig. 4-9. (Etym. *Asteridium,* cui affinis). — Sporidia multiseptata, brunnea (non hyalina ; cetera *Asterinæ* vel *Asteridii.* — Species *Asteridii* plenius examinandæ, plures enim ob sporidia plus minus colorata ad *Asteridiellam* spectare videntur.

1. **Asteridiella Solani** Mc Alp. l. c. — Mycelio amphigeno et ramu- 2681
licolo, crustas confertas, minutas, nigras, plerumque orbiculares sæpe confluentes, facile solubiles, grumosas efficiente, reticulato et hyphis delicatis hyalinis septatis copiose ramosis circiter 3 μ. latis matrici affixis sensim in hyphas coloratas transeuntibus composito; hyphis coloratis atro-brunneis, rigidis, crasse tunicatis, dense intricatis, septatis, ramosis, 8-9½ μ. latis, ramulis ultimis plerumque 1-septatis et pallidioribus; peritheciis aggregatis, depresso-globosis, nigris, verrucosis, 130-330 μ. diam.; ascis oblongis v. cylindraceis, plerumque 4-sporis, 38-64 × 13-26 (immaturis); sporidiis brunneis, oblongis, 4-septatis, ad septa leniter constrictis, utrinque rotundatis, 36-44 × 14-15; pycnidiis globosis, aureo-brunneis, ore circulari apertis, pariete e cellulis minutis polygonalibus 100-140 μ. diam. composito; sporulis minutis, subglobosis v. ova-

libus, hyalinis aut rarissime brunneolis, $5\,^1/_2 \times 3$ vel 4 μ. diam., ex hyphis gracilibus, hyalinis, septatis, ramosis oriundis.

Hab. in foliis, petiolis et caulibus Solani viridis, N. S. Wales Australiæ (Maiden).

Fam. 6. **Lophiostomaceæ** Sacc.

Sect. 1. **Didymosporæ.**

SCHIZOSTOMA Ces. et De Not. — Syll. II, p. 673, IX, p. 1074, XI. p. 382.

1. **Schizostoma stupeum** Ell. et Ev. Bull. Labor. Nat. Hist. Univ. Jowa, IV, 1896, p. 70. — Peritheciis gregariis, ovato-conicis, $^3/_4$ mm. altis, $^1/_2$ mm. crassis, erumpenti-superficialibus, fuscis, basi pilis radiatis erectis griseis instructis; ostiolo crasso, firmo, breve cylindraceo, obtuso, vix compresso v. rostro angusto erumpente compresso ornato, apice subtruncato ibique atro; ascis cylindraceis, 75-85 × 4, octosporis, paraphysatis; sporidiis monostichis, oblongis, fuscis, 1-septatis, leniter constrictis, rectis v. lenissime curvulis, 9-12 × 3-3 $^1/_2$. 2682

Hab. in ligno vetusto, Nicaragua (Smith).

LOPHIOSPHÆRA Trev. — Syll. II, p. 675, IX, p. 1075, XI, p. 383.

1. **Lophiosphæra rhodospora** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 278. — Peritheciis erumpenti-superficialibus, gregariis, ovato-conicis, lateraliter compressis, 200-250 . diam., submembranaceis; ostiolo angusto, subcompresso v. papillato, mox perforato; ascis clavato-cylindraceis, 70-75 × 10-12, (paraphysatis?), octosporis, breve stipitatis; sporidiis oblique monostichis v. distichis, ovoideo-ellipticis, roseo-hyalinis, uniseptatis, vix constrictis, 12-14 × 5-6. 2683

Hab. in cortice vetusto, Ohio Amer. bor. (Morgan).

2. **Lophiosphæra zeicola** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 279. — Peritheciis gregariis, ovato-globosis, apice ac ostiolo erumpente nigro, nitido, angusto, compresso exceptis, totaliter innatis, $^1/_2$ mm. diam.; ascis oblongo-ovatis, breve stipitatis, obsolete paraphysatis, octosporis, 35-45 × 10-12; sporidiis distichis, ovatis, uniseptatis, non constrictis, fumoso-hyalinis, 8-10 × 4. 2684

Hab. in culmis vetustis Zeæ Maydis, Kansas Amer. bor. (Bartholomew).

Sect. 2. **Phragmosporæ.**

LOPHIOTREMA Sacc. — Syll. II, p. 678, IX, p. 1076.

1. **Lophiotrema Œnotheræ** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 128. — Peritheciis subgregariis sparsisve erumpenti-superficialibus, minutis, $^1/_4$ mm. diam., ovato-globosis, ostiolo angusto sed prominulo compresso donatis; ascis clavatis, 45-55 × 7, paraphysatis; sporidiis distichis v. obliquis, oblongo-fusoideis, 4-nucleatis, demum 3-septatis medioque leniter constrictis, hyalinis, subobtusis, rectis v. leniter curvulis, 12-13 × 3-3 $^1/_2$. 2685

   Hab. in caulibus emortuis Oenotheræ biennis, New York Amer. bor.

2. **Lophiotrema vagabundum** Sacc. - Syll. II, p. 684. — Forma **Spartii** P. Brun. Bull. Soc. Sc. Nat. Nantes IV, 1894, p. 33. — Sporidiis 20 × 5. 2686

   Hab. in ramis emortuis Spartii juncei in Gallia. — Forma **Inulæ** P. Brun. l. c. — Sporidiis 22-38 × 5-6, olivaceis, 3-septatis, ad septa constrictis. — In caulibus emortuis Inulæ crithmoidis. Fouras in Gallia.

3. **Lophiotrema incisum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 460. — Peritheciis dense sparsis, cortice immersis, intus albis solidisque, 300-350 μ. diam., sæpe binis v. trinis consociatis, lignum non penetrantibus, apice quadrisulcato erumpentibus; ostiolo subcompresso; ascis cylindraceis, 75-100 × 10-12, breve stipitatis, paraphysatis; sporidiis mono-vel distichis, cylindraceis, obtusis, 3-4-nucleatis, inter nucleos constrictis, 1-septatis, 15-20 × 5-6. 2687

   Hab. in ramis emortuis Ribis prostrati, Colorado Amer. bor.

4. **Lophiotrema Fraxini** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 128. — Peritheciis sparsis v. gregariis semierumpentibus depresso-sphæricis, brunneis, 400-500 μ. diam., ostiolo vario, papilliformi, compresso-conico v. expanso donatis; ascis clavato-cylindraceis, 85-90 × 10; sporidiis distichis fusoideis acuminatisque, hyalinis, 5-v. plurinucleatis, demum 3-5 septatis atque vix constrictis, 35-42 × 4 $^1/_2$-6. 2688

   Hab. in ligno decorticato Fraxini viridis, Kansas Amer. bor. (Bartholomew).

5. **Lophiotrema Phœnicis** Roll. Bull. Soc. Myc. 1896, p. 5, tab. II, fig. 5. — Peritheciis nigris, sparsis, innatis, $^1/_2$ mm. latis, ostiolo compresso, crasso, tantummodo prominente; ascis clavatis, in stipi- 2689

tem tenuem sat longum desinentibus, sine stipite 100-130 × 20; sporidiis subdistichis, fusiformibus, rectis v. curvis, hyalinis, 4-6-plerumque 5-septatis, ad sepia sæpe constrictis, circiter 50 × 10, loculis uniguttatis; paraphysibus tenuibus, numerosis.

Hab. ad truncos Phœnicis, Golfe Juan Galliæ. — A *L. phyllophilo* longe diversum.

6. **Lophiotrema Dominici** Sacc. Bull. Soc. Myc. de Fr. 1896, p. 69, 2650
tab. VI, fig. 4. — Peritheciis subgregariis, innato-erumpentibus, globulosis, nigris, $^3/_4$ mm. diam., ostiolo lineari, parum elevato, integro; ascis clavatis, breve stipitatis, apice rotundatis, 120-130 × 18-20; paraphysibus guttulatis; sporidiis distichis, cylindraceo-fusoideis, utrinque rotundatis, curvulis, 3-septatis, 3-constricto-torulosis, 30-42 × 6-8, hyalinis, 4-guttatis, diu strato mucoso obvolutis.

Hab. in culmis Phragmitis communis, sociis *Hendersonia arundinacea* et *Stagonospora vexatula,* Venetiis, Italia (Dominicus Saccardo).

LOPHIOSTOMA (Fr.) Ces. et De Not. — Syll. II. p. 689, IX, p. 1083, XI, p. 383.

1. **Lophiostoma Hazslinszkyanum** Sacc. et Syd. *Lophiostoma caudatum* 2691
Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p 81, nec H. Fabre. — Peritheciis sparsis, emergentibus, stromate rimali angusto insidentibus; ascis cylindricis, in stipitem attenuatis, paraphysibus obvallatis; sporidiis oblique monostichis, angustis, fusiformibus, septis tribus transversalibus ornatis ideoque quadricellularibus, cellulis duabus mediis fuscescentibus ac 24 μ. longis, cellulis extremis achrois utrinque appendicula filiformi 12 μ. longa ornatis, in centro 4 μ. crassis.

Hab. in caulibus emortuis Aconiti Napelli in Hungaria. — Mirabile, quod sporidia ex asco liberata omnia appendiculis connexa apparent.

2. **Lophiostoma ambiguum** Otth, Bern. Mittheil. 1868, p. 54. — Pe- 2692
ritheciis nigro-fuscis, corneis, sparsis, globoso-depressis aut pluribus connatis, minoribus, difformibus, cortici pustulato leviter immersis, ostiolo obconico plus minus compresso erumpente et prominulo; ascis clavatis, octosporis; sporidiis oblongo-ellipsoideis, 3-septato-torulosis, 4-guttatis, olivaceo-brunneis, 16-18 × 6; paraphysibus filiformibus, longis.

Hab. in ramis emortuis Crataegi pr. Bern Helvetiæ.

3. **Lophiostoma perversum** De Not.-Sacc. Syll. II, p. 694. — Var. **santonense** P. Brun. Act. Soc. Linn. Bordeaux XLII, 1889, p. 12 extr. — Peritheciis sparsis v. subgregariis, immersis, vertice in ostiolum breve compressum, prominulum nitidulum desinentibus; sporidiis obscure luteis, rectis v. curvulis, 25 × 5-6. 2693

Hab. in ramis decorticatis Fraxini excelsioris, Saintes Galliæ.

4. **Lophiostoma tingens** (Schw.) Ellis, Proc. Acad. Philad. 1895, p. 26, *Sphæria tingens* Schw., Syn. Amer. bor. n. 1591. — Peritheciis ligno innatis, ovato-globosis, circiter $^3/_4$ mm. diam., subcompressis, ostiolo obtuse conico, subtuberculari, firmo erumpente, leviter compresso donatis; ascis clavato-cylindraceis, breve stipitatis, 100-120 × 15-18, octosporis; paraphysibus numerosis, filiformibus; sporidiis distichis v. obliquis, late fusoideis, hyalinis, demum brunneolis, 4-6 (plerumque 5-) septatis, 22-30 × 6-7. 2694

Hab. in ligno decorticato Lauri Sassafras, Bethlehem, Amer. bor.

5. **Lophiostoma dakotense** Ell. et Ev. Proc. Acad. Philad. 1895, p. 420. — Peritheciis gregariis semiimmersis subglobosis, 200-250 μ. diam., nigro-brunneis, ostiolo conico subcompresso donatis; ascis clavato-cylindraceis, breviter stipitatis, 65-75 × 10-12, paraphysibus numerosis filiformibusque obvallatis; sporidiis distichis oblongo-fusoideis, primitus 1-septatis dein 3-septatis septisque constrictis, subrectis, hyalinis v. demum subolivaceis, 15-20 × 5-6. 2695

Hab. in ramis decorticatis Populi moniliferæ, socia *Phoma*, Dakota Amer. bor. (Williams). — *L. duplici* affine, sed omnibus partibus minus.

6. **Lophiostoma zonatum** Hazsl. Math. es term. Közlem. XXV, 2, Budapest 1892, p. 82. — Peritheciis ut in *L. hungarico*; sporidiis strato mucoso zonatis, initio oblongis, obtusulis, hyalinis, demum elongatis, 4-locularibus, 44-50 × 11-13, coloratis, loculis extimis saturatioribus. 2696

Hab. in trunco Carpini Betuli, socio *Lophidio compresso* in Hungaria.

7. **Lophiostoma Julii** (Fabr.) Sacc.-Syll. II, p. 702. — Var. **Phœnicis** Roll. Bull. Soc. Myc. de Fr. 1896, p. 5, tab. I, fig. 7. — Peritheciis laxe gregariis, nigris, parenchymaticis, infossis, $^1/_2$ mm. latis, ostiolo crasso, compresso præditis, nucleo albido; ascis cylindricis, crasse pedicellatis, 280-310 × 25-30, 8-sporis; sporidiis fusiformibus, subdistichis, diu hyalinis, dein olivaceo-fuliginosis, 2697

primo 1-, tandem 5-6-septatis, ad septa brunnea, crassa sæpe constrictis, singulis loculis gutta ampla præditis, 60-70 × 12; paraphysibus filiformibus, ramosis, intricatis.

Hab. in truncis Phœnicis, Golfe Juan Galliæ. — A *L. Julii* differt ascis admodum majoribus.

8. **Lophiostoma clavisporum** Ell. et Ev. Proc. Acad. Philad. 1895, p. 419. — Peritheciis sparsis v. gregariis, innatis, culmorum superficiem plerumque nigrefacientibus, ostiolo erumpente, applanato 300 × 150; ascis clavato-cylindraceis, breve stipitatis, paraphysatis, 40-60 × 12; sporidiis in asco confertis, clavatis, 3-5-septatis, ad septa plerumque constrictis, luteo-brunneis, 20-27 × 5-6, leniter curvulis, apice obtuso-rotundatis, deorsum gradatim angustatis.

Hab. in culmis Elymi canadensis, Kansas, Amer. bor. (Bartholomew).

Sect. 3. Dictyosporæ.

LOPHIDIUM Sacc. — Syll. II, p. 710, IX, p. 1091, XI. p. 384.

1. **Lophidium incisum** Ell. et Ev. Proc. Californ. Acad. V, 1895, p. 732. — Peritheciis erumpenti-superficialibus interdum subseriatim dispositis v. subconnatis, depresso-globosis, nigris, $^1/_2$-$^3/_4$ mm. diam., primitus apice rotundatis ostioloque nullo ornatis, dein ibi fissis v. interdum tribus quattuorve sulcis radiatis præditis ostioloque lato compresso donatis; ascis cylindraceis in stipitem brevem desinentibus, 120 150 × 12-14, 6-8-sporis, paraphysibus numerosis filiformibusque obvallatis; sporidiis monostichis oblongo-ellipticis, 5-6-septatis, loculis plurimis septulis etiam longitudinalibus divisis, 23-27 × 12-14.

Hab. ad ramos Symphoricarpi oreophili, Utah Amer. bor.

2. **Lophidium trifidum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 129. — Peritheciis gregariis ovato-conicis, circiter 1 mm. diam., basi lata ligno leniter immersis, apice plerumque acute elliptico-depressis, centro ostiolo angusto inconspicuo præditis, in senectute laciniis tribus latis apertis; ascis cylindraceis, 130-150 × 12 (cum stipite brevi); sporidiis monostichis, oblongo-ellipticis, 5-septatis, 1 vel pluribus cellulis septo longitudinali divisis, medio leniter constrictis, 20-23 × 12.

Hab. in ligno decorticato Salicis, Washington Amer. bor. (Suksdorf). — *L. Populi* affine.

3. **Lophidium rude** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 129. — 2701
Peritheciis sparsis v. gregariis, semiemergentibus, subglobosis, brunneis, $^1/_2$-$^5/_4$ mm. diam., ostiolo breve cylindraceo subcompresso ornatis; ascis cylindraceis, 8-sporis, paraphysatis, p. sp. 75-80 12-14; sporidiis monostichis, oblongo-ellipticis v. oblongo-cylindraceis, brunneis, 4-8-septatis, non constrictis, obtusis, cellulis nonnullis septo longitudinali plus minus distincte percursis. 22-35 ≈ 8-12.

Hab. in ligno vetusto, Kansas Amer. bor. (Bartholomew).

4. **Lophidium anomalum** Atk. Bull. Cornell Univ. III, n. 1, 1897, 2702
p. 12. — Peritheciis erumpentibus, nigris, carbonaceis, elongatis, 400-700 ≈ 200-300; ostiolo inconspicuo, interdum compresso; ascis longe cylindraceis, stipitatis; paraphysibus filiformibus, 170-200 *μ* longis; sporidiis octonis, monostichis, interdum subdistichis, 4-6-septatis, medio leniter constrictis, rectis v. rarissime leniter curvulis, 1-3 loculis mediis septulo longitudinali divisis, 22-28 ≈ 7-9.

Hab. in culmis Erianthi, Auburn, Alabama Amer. bor.

5. **Lophidium chartarum** Sacc. et Syd. Sic nominandum est *Lophidium purpurascens* Ell. et Ev. in Syll. XI, p. 384, quum exstet anterius *Lophidium purpurascens* Mont. in Syll. IX, p. 1091

Fam. 7. Hemihysteriaceæ Speg.

Sect. 1. Phæosporæ.

CYCLOSTOMELLA Pat. Bull. Boiss. 1896, p. 655 (Etym. *cyclos* circulus et *stoma* ostiolum). — Stromata foliicola, orbicularia, dimidiato-scutata, centro adfixa. Perithecia radiantia in stromate circulariter disposita, ostiolis hysterioideis, annulum formantibus donata. Sporidia ovata, simplicia, brunnea. Mycelium superficiale nullum. *Hysterostomellæ* et *Parmulariæ* affinis, sed differt præcipue sporidiis non septatis ascisque 16-sporis.

1. **Cyclostomella disciformis** Pat. l. c. — Maculis nullis; stromatibus 2703
hypophyllis, sparsis, superficialibus, centro matrice adnatis, orbicularibus, 1-2 mm. diam., atris, medium versus obtuse papillatis, ambitu integro vel minute fimbriatulo, contextu membranaceo-carbonaceo, radiatim celluloso, brunneo; perithecis stromate innatis, elliptico-linearibus, distinctis, radiantibus extremitate junctis et tunc circulum continuum moniliformem efficientibus; ostiolis

hysterioideis circulariter congruentibus; ascis clavatis, 16-sporis, aparaphysatis, 60-70 × 15-20; sporidiis conglobatis, simplicibus, brunneis, 8-10 × 4-8.

Hab. ad folia subcoriacea plantæ cujusdam ignotæ in Costa-Rica (Tonduz).

Sect. 2. Didymosporæ.

HYSTEROSTOMELLA Speg. — Syll. IX, p. 1098, XI, p. 385.

1. **Hysterostomella Miconiæ** P. Henn. Hedw. 1897, p. 231. — Stro- 270
matibus epiphyllis, superficialibus, sparsis v. gregariis, interdum confluentibus, planis, orbicularibus, atris, crustaceis, opacis, ambitu rugulosis; peritheciis densis, lineatis, subcircinatis, ostiolis hysterioideis; ascis ovoideis vel subclavatis, apice obtuso-rotundatis, 8-sporis, 30-40 × 15-18; sporidiis subconglobatis, oblongis, medio 1-septatis, constrictis, brunneo-fuscis, utrinque obtuso-rotundatis, 14-16 × 8-9.

Hab. in foliis Miconiæ spec. pr. Goyaz Brasiliæ (Glaziou).

PARMULARIA Lév. Ann. Sc. nat. 1846, ser. III, vol. V, p. 236; Syll. II, p. 662, XI, p. 387; P. Hennings in Hedw. 1895, p. 111; *Schneepia* Speg. Fungi Guar. Pug. I, p. 259; *Clypeum* Massee Journ. of Bot. 1896, p. 145. — Stromata superficialia, orbicularia, dimidiato-scutata, atra. Perithecia in stromate dense constipata, radiantia, ostiolis hysterioideis, æque radiantibus donata. Asci cylindracei, paraphysati, octospori. Sporidia elliptica, didyma, initio hyalina, demum colorata, plerumque fusca. — Ubi occurrant species constanter hyalosporæ, pro his genus *Schneepia* Speg. (1886) servari poterit.

1. **Parmularia Styracis** Lév. l. c. p. 281; Hennings l. c. p. 111; 27
Sacc. Syll. II. p. 662; Lindau in Engler-Prantl, Natürl. Pflanzenfam. I, 1, p. 274. — Stromatibus epiphyllis, scutellato-rotundatis interdum confluentibus, medio umbilicato-depressis, centro ad marginem dense radiatim sulcatis, striis deinde longitudinaliter in rimas canaliculatas dehiscentibus, atro-opacis, 2-5 mm. diam.; ascis subcylindraceis v. oblongo-clavatis, apice obtuso-rotundatis, stipitatis, octosporis, 70-100 × 12-15; paraphysibus filiformibus, apice subclavatis, septatis, brunneolis; sporidiis monostichis v. subdistichis, oblonge ovoideis v. subellipsoideis, primo subhyalinis, dein

fusco-brunneis, medio 1-septatis, subconstrictis, utrinque obtusis, 14-18 × 7-8.

Hab. in foliis Styracis per magnam partem Brasiliæ. — Huc verisimiliter *Schneepia Arechavaletæ* Speg. ducenda, quæ forte immatura ab auctore descripta.

2. **Parmularia guaranitica** (Speg.) P. Henn. Hedw. 1897, p. 230; 2706
Schneepia guaranitica Speg. in Syll. IX, p. 1097; *Parmularia Styracis* Lév. var. *minor* P. Henn. Hedw. 1895, p. 112, Syll. XI, p. 387.

Hab. in foliis Styracis in Brasilia et Paraguay.

3. **Parmularia pulchella** (Speg.) Sacc. et Syd. *Schneepia pulchella* 2707
Speg., Syll. IX, p. 1097.

Hab. in foliis vivis Sapotaceæ cujusdam in Brasilia.

4. **Parmularia peltata** (Mass.) Lind. in Engler et Prantl, Natürl. 2708
Pflanz. I, 1, p. 274; *Clypeum peltatum* Mass. (nov. gen.) Journ. of Bot. 1896, p. 145. – Peritheciis epiphyllis, orbicularibus, planis, gregariis v. confertis, nigris, submembranaceis, discoideis, in medio umbonatis, in rimas radiales longitudinales 2–3 mm latas dehiscentibus; ascis cylindrico-clavati octosporis, 100-110 × 14-15; sporidiis irregulariter distichis, hyalinis (semper?), levibus, ellipticoclavatis, 1-septatis, loculo superiore majore, 15 × 8-9; paraphysibus numerosis, septatis, interdum ramosis, apice olivaceis ibique incrassatis, 4-5 μ. crassis.

Hab. in foliis coriaceis plantæ ignotæ, Nova Zelandia (Colenso).

5. **Parmularia Uleana** P. Henn Hedw. 1898, p. (206). — Stroma- 2709
tibus epiphyllis, applanatis. scutatis, orbicularibus, atro-brunneis, centro ad marginem dense radiatim sulcatis, striis dein longitudinaliter dehiscentibus, 3-5 mm. longis, 3-4 mm. latis; ascis clavato-cylindraceis, rotundatis, 60–70 × 22-28; sporidiis octonis distichis, oblongo-ovoideis, hyalinis usque luteolis, medio 1-septatis, 16–20 × 8-9.

Hab. in foliis Æchmeæ pectinatæ in Brasilia (Ule).

6. **Parmularia javanica** (Pat.) Sacc. et Syd., *Schneepia javanica* Pat. 2710
Ann. Jard. Buitenz. 1897, I, suppl. p. 122. — Stromatibus epiphyllis minutis, vix 1 mm. latis, orbicularibus v. stellatis, margine non fimbriato, convexis, nitentibus, sæpe concentrice sulcatis, ostiolis hysterioideis eximie e centro radiantibus donatis, contextu microthyriaceo; ascis ovoideo-elongatis, apice obtusis, inferne attenuatis, 80-100 25-30; paraphysibus hyalinis, linearibus, apice obtusis, subgelatinosis; sporidiis hyalinis dein brunneis, levibus,

ovoideis, utrinque rotundis, medio septatis constrictisque, 26-30 × 10-12; stromatibus hypophyllis ex hyphis dendroideo-ramosis, gracilibus, brunneis, 5-7 μ. crassis, hyphopodiis destitutis, repentibus compositis, plagas atras, carbonaceas, arcte adnatas, orbiculares, circiter 1 cm. diami, confluentes, ambitu radiantes efficientibus; perithecis superficialibus, linearibus, hysterioideis, rectis v flexuosis, stellatim v. irregulariter centro plagarum sitis.

Hab. in foliis Nipæ fruticantis, Java (Massart)

Fam. 8. Hysteriaceæ Corda.

Sect. 1. Hyalosporæ.

SCHIZOTHYRIUM Desm. — Syll. II, p. 723, IX. p. 1100.

1. Schizothyrium Aceris-laurini Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 123. — Maculis epiphyllis, pallidis, irregularibus, sparsis aut confluentibus; perithecis sparsis, atris, nitentibus, orbicularibus v. ellipsoideis, minutis, $^1/_2$-$^2/_3$ mm. diam., dimidiatis, convexis, basi insculptis, levibus, lineari-ostiolatis; ascis claviformibus, 130-180 × 13-16, octosporis, paraphysatis; sporidiis subdistichis, hyalinis, simplicibus, claviformibus, utrinque obtusis, 20-22 × 4-5; paraphysibus numerosis, linearibus, ascis longioribus. 2711

Hab. in foliis Aceris laurini, Java (Massart).

Sect. 2. Phæosporæ.

ERIKSSONIA Penz. et Sacc. Malpighia XI, 1897, p. 526 (Etym. a cl. doct. J. Eriksson holmiensi). — Stromatica; sori disciformes, minuti, nigri, superficiales, basi stromatica, globulosa, innata, cava, superne peritheciophora; perithecia pauca, oblonga e centro radiatim divergentia radiatimque carinato-rimosa, nigra, subcarbonacea. Asci teretiusculi, aparaphysati, octospori. Sporidia e globoso ovoidea, diu hyalina, demum atra, opaca. — Genus eximium a *Cyclostomella* Pat. mox dignoscitur ostiolis e centro radiantibus, nec annulatim positis et ascis 8-sporis; a *Parmularia* Lév. (= *Schneepia* Speg.) imprimis sporidiis continuis, atris. Fabrica ejus omnino peculiaris, sed ob minutiem et in sicco ægre discernenda.

Erikssonia pulchella Penz. et Sacc. Malpighia XI, 1897, p. 526. 2712
hypophyllis dense gregariis, minutis, convexo-discoideis,

400 μ. diam., nigris, glabris, basi stromatica globulosa, cava (peritheciiformi!) 200 μ. diam., nigrescente; perithecis in quoque soro subquinis, exquisite radiatim positis, oblongis, convexulis, 220 × 150, rugulosis, tenuissime carinato-rimosis, contextu dense celluloso, nigricante, subcarbonaceo; ascis teretibus v. tereti-fusoideis, breve stipitatis, utrinque obtusis, 50-60 × 12-14, sæpe gibbis, octosporis, aparaphysatis; sporidiis monostichis v. partim distichis e globoso ovoideis, inæqualibus, 9-12 × 6-7, diu hyalinis, dein saturate brunneis, 1-guttatis.

Hab. parasitica in foliis coriaceis nondum emortuis nec maculatis plantæ ignotæ, Depok, ins. Java.

Sect 3. Didymosporæ.

AULOGRAPHUM Lib. — Syll. II, p. 727, IX, p. 1101, XI, p. 336.

1. **Aulographum atro-maculans** Penz. et Sacc. Malpighia XI, 1897, 2713
p. 327. — Perithecis hinc inde dense confertis maculasque atras plus minus extensas formantibus, anguste linearibus, vix 0,4-0,5 mm. long., superficialibus, in soros subcirculares minutos radiatim digestis, depressis, tenuissimis, obsolete rimosis, ascis cylindraceo-clavatis, apice rotundatis, 25-30 × 8-9, basi obtuse tenuatis, paraphysatis octosporis; sporidiis obovatis, 12 × 4, demum 1-septatis, non constrictis, ex hyalino dilutissime flavidis.

Hab. in petiolis emortuis Palmarum in Horto bot. Bogoriensi, ins. Java. — Mycelium repens crustulas atras subinde valde extensas efformat.

GLONIUM Mühl. — Syll. II, p. 731, IX, p. 1102, XI, p. 386.

1. **Glonium macrosporum** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, 2714
p. 207. — Perithecis sparsis, nigris, carbonaceis, late ovalibus obtusisque, in longitudine indistincte striatis labiisque dense conniventibus, 1 mm. circiter longis; ascis cylindraceis, tenue tunicatis, 200 × 35-40, paraphysatis, octosporis; sporidiis longissimis cylindraceis leniterque curvulis, obtusis, inæqualiter 1-septatis parumque constrictis, hyalinis vel tandem dilute coloratis, 60-70 × 12-15.

Hab. in ramis emortuis Perseæ palustris, Mississippi Amer. bor. — Ad *Tryblidium* vergit sporidiis interdum subcoloratis.

SYNGLONIUM Penz. et Sacc. Malpighia XI, 1897, p. 526 (Etym. *syn* simul et *Glonium*, h. e. *Glonium* compositum). — Perithecia

carbonacea, nigra, superficialia, elongata, semicirculariter curvata v. varie flexuosa et in soros orbiculares convexo-pulvinatos arcte connexa, levia, longitudinaliter rimosa, labiis adpressis. Asci tereti-clavati, filiformi-paraphysati, octospori. Sporidia fusoidea, 1-septata, hyalina. — Genus vere singulare, sistit quasi *Glonium* compositum, phyllogenum. Tam hoc quam genus *Erikssonia*, etsi inter se diversissima, sunt Hysteriaceæ stromaticæ et novam tribum formant!

1. **Synglonium insigne** Penz. et Sacc. Malpighia XI, 1897, p. 527. 2715
— Soris epiphyllis, sparsis, superficialibus, pulvinatis, prominentibus, 3-5 mm. diam., suborbicularibus, nigris, carbonaceis, e 4-12 peritheciis constantibus; peritheciis curvatis v. varie tortis, arcte connexis, 2-3 mm. long., 0-3 mm. cr., rima angusta sed distincta exaratis; ascis tereti-clavatis, apice obtusulis, deorsum attenuato-stipitatis, 75 × 8, octosporis; paraphysibus copiosis, filiformibus, subinde ramulosis; sporidiis oblique monostichis v. subdistichis, fusoideis, curvulis, 1-septatis, leviter constrictis, 18 × 4, utrinque acutiusculis, hyalinis.

Hab. in foliis vivis v. languidis Aceris laurini in M. Pangerango, ins. Java.

LEMBOSIA Lév. — Syll. II, p. 741, IX, p. 1104, XI, p. 387.

1. **Lembosia illiciicola** Tracy et Earle, Bull. Torr. Bot. Club. 1895, 2716
p. 177. — Epiphylla; maculis vagis, magnis, dilute brunneis, orbicularibus v. irregularibus; peritheciis numerosis, superficialibus, carbonaceis, plerumque linearibus strictisque, interdum triangulariter stellatis, 300-400 × 100; subiculo e fibris dilute brunneis, flexuosis, pellucidis, continuis, varie ramosis et anastomosantibus formato; ascis numerosissimis, ovalibus v. ovatis, 8-sporis, 25-30 × 12; sporidiis ovalibus, uniseptatis, leniter constrictis, utrinque obtuso-rotundatis, hyalinis, demum subcoloratis, 8-10 × 3-4.

Hab. in foliis Illicii floridani, socio *Asteridio Illicii*, Mississippi, Amer. bor.

2. **Lembosia decalvans** Pat. Ann. Jard. Buitenz. 1897, I suppl. 2717
p. 122. — Mycelio epiphyllo, effuso, arcte adnato, dendroideo-ramoso, ex hyphis brunneis, gracilibus, 3-5 μ. crassis, septatis, ramosis, hyphopodiis sessilibus, paucis, subglobosis, unicellularibus, 8-10 μ. latis, donatis formato, plagas atras, orbiculares, centro mox denudatas, ambitu radiantes efficiente; peritheciis gregariis, plus minus circulatim dispositis, atris, carbonaceis, obscuris, rectis

v. curvulis, rimoso-dehiscentibus, 160-300 × 100-150; asois ovoideis, 40-50 × 23-28, aparaphysatis, 8-sporis; sporidiis ovoideis, medio septatis constrictisque, diu hyalinis, dein brunneis, 20-23 × 8-10.

Hab. in foliis Pachygones zonatæ, Java. — Var. **Cocculi** Pat. l. c. — Differt a forma typica plagis centro non denudatis. — *Hab.* in foliis Cocculi, Java (Massart).

3. **Lembosia prinoides** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 176. — Epiphylla; mycelio in maculis orbicularibus, pallidis, brunneo; peritheciis sparsis, nigris, subcarbonaceis, fimbriato-marginatis, ellipticis, subacutis, sæpe furcatis, 200-350 × 120-150; subiculo e fibris obscure brunneis, irregularibus, nodulosis, plerumque continuis, ramosis formato; ascis ovatis, 8-sporis, 30-35 × 15-18; sporidiis ellipticis, inæqualiter uniseptatis, parum constrictis, subhyalinis, demum fuligineis, 10-15 × 4-5. 2718

Hab. in foliis Ilicis coriaceæ, Mississippi, Amer. bor.

4. **Lembosia Ilicis** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 208. — Epiphylla; mycelio ex hyphis numerosis, gracilibus, fuscis, 15-20 × 2-3, formato, maculas cinereas 3-5 mm. latas efficiente; peritheciis plerumque linearibus simplicibusque, raro ramosis, 200-300 × 70-80; ascis ovalibus v. oblongis non stipitatis, 20-25 × 10-12; sporidiis ellipticis, subæqualiter 1-septatis, leniter constrictis, tandem olivaceis, 8-10 × $2^1/_2$-3. 2719

Hab. in foliis vivis Ilicis glabræ, Mississippi in Amer. boreali.

5. **Lembosia angustiformis** Tracy et Earle, Bull. Torr. Bot. Club. 1895, p. 176. — Epiphylla; mycelio in vesiculis brunneis irregulariter stellatis parco; peritheciis nigris, longis angustisque, sæpe flexuosis, raro ramosis, 175-300 × 60-80; subiculo e fibris paucis, brevibus, flexuosis, subfuscis, ramosis formato; ascis late ovalibus, circiter 18 × 15; sporidiis obovatis subinæqualiter uniseptatis, constrictis, ex hyalino dilute fuligineis, 8-10 × 4-5. 2720

Hab. in foliis Ilicis coriaceæ, Mississippi, Amer. bot.

6. **Lembosia Cliftoniæ** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 208. — Epiphylla; mycelio parco v. plerumque nullo, ex hyphis paucis obscure coloratis nodulosis flexuosisque, 15-25 × 2-3, formato, plagas minutas irregulariter rotundatas, albescentes, 1-2 mm. diam., efficiente; peritheciis minutis, ovalibus v. lineari-ovalibus, vulgo rectis simplicibusque, rarius crassis, 100-150 × 40-70; ascis obovatis, 20-25 × 10-15; sporidiis ovalibus v. biconicis æqualiter 1-septatis, dilute fuligineis, 9-11 × 4-5. 2721

Hab. in foliis vivis Cliftoniæ ligustrinæ, Mississippi Amer. bor.,

7. **Lembosia Andromedæ** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 207. — Hypophylla, maculis definitis carens; peritheciis sparsis gregariisve linearibus hinc inde flexuosis, ramosis, 250-400 × 50-90, subiculo copioso ex hyphis laxe intertextis anastomosantibus, fuscis, 25-40 × 2-3 composito insidentibus; sporidiis inæqualiter 1-septatis, ovalibus v. biconicis, hyalinis (an immaturis?), 8-9 × $2^1/_2$-3. 2722

Hab. in foliis caulibusque Andromedæ nitidæ, Mississippi Amer. bor. — *L. Oleæ* valde affinis

8. **Lembosia Oleæ** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 207. — Hypophylla, maculis carens; peritheciis sparsis magnisque, flexuosis sæpeque ramosis v. conjunctis, circiter 400 × 80-100, subiculo bene evoluto ex hyphis longis gracilibus fuscis ramosis denseque contextis, 100 × 2-$2^1/_2$ composito insidentibus; sporidiis inæqualiter uniseptatis, loculo breviore angustiore, hyalinis (probabiliter immaturis!), 12-15 × 4. 2723

Hab. in foliis Oleæ americanæ, Mississippi Amer. bor.

9. **Lembosia rugispora** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 208. — Maculis epiphyllis, irregulariter orbicularibus, brunneis, mycelio radiato tectis, 1-3 mm. diam.; peritheciis sæpe stellatim conjunctis v. varie ramosis, circiter 400 × 100; subiculo arcte evoluto, e filis variis, aliis pallidis multiseptatis, circiter 3-$3^1/_2$ μ. crassis, aliis obscurioribus plerumque continuis, creberrime anastomosantibus, $2^3/_4$-3 μ. crassis, interdum conidia erecta, sessilia, 4-8-septata, brunnea, clavata, 30-45 × 7-8 uetientia gerentibus formato; ascis ovalibus, 25-35 × 20-25; sporidiis magnis, ovalibus, subæqualiter 1-septatis, demum brunneis, 15-20 × 8-10, in maturitate minute verruculosis. 2724

Hab. in foliis vivis Perseæ palustris, Mississippi in America boreali.

10. **Lembosia quercina** (Ell. et Mart.) Tracy et Earle, Mississippi Fungi 1895, p. 105; *Aulographum quercinum* Ell. et Mart. Am. Nat. 1883, p. 1283. — Peritheciis epiphyllis sparsis v. in greges orbiculares collectis, oblongis v. linearibus, sæpe ramosis, rima longitudinali dehiscentibus, vix 1 mm. long., rectis v. curvulis, basi fimbria mycelica cinctis; ascis ovatis, 20-25 × 15-18, 8-sporis; sporidiis conglobatis, obovatis, 1-septatis, initio 10-14 × 6-7, hyalinis, dein maturis, 15-20 × 8, atro-brunneis. 2725

Hab. in foliis Quercus virentis. Florida, Louisiana, Mississippi Amer. bor.

11. **Lembosia** diffusa Wint.-Syll. IX, p. 1106. — **L. breviuscula** P. et S., Malpighia XI, 1897, p. 527. — A typo differt perithecciis hypophyllis nec epiphyllis, brevibus, orbicular.-ellipticis, 200-300 μ. long., nec elongato lanceolatis; maculis foliorum quidem roseis sed minus manifestis; maculis myceliaribus 3-5 mm. diam, nec 10 mm. d. 2726

Hab. in foliis coriaceis languidis, M. Pangerango Javæ — Asci obovati, 60-65 × 30, aparaphysati (?), suboctospori; sporidia oblongo-fusoidea, 1-septata, non constricta, 30-35 × 8-10, tandem utrinque rotundata, constricta, 50-32 × 11-12, fuliginea. Hyphæ radiantes, ramulosæ, subinde nodulosæ (nec pectinatæ), 8 μ. cr., fuhgineæ.

12. **Lembosia serpens** Pat. Ann. Jard. Buitenz. 1897, I suppl. p. 122 — Mycelio nullo; perithecciis hypophyllis, atris, non nitentibus, dimidiatis, convexis, utrinque acutis, $^1/_2$-$^2/_3$ mm. longis, simplicibus v. furcatis, rimoso-dehiscentibus, ambitu fimbriatis, sparsis aut confluentibus; ascis ovoideis, subsessilibus, 33-40 × 15-23 octosporis, aparaphysatis, sporidiis elongatis, utrinque obtusiusculis, medio septatis constrictisque, 28 × 8, brunneis. 2727

Hab. in foliis Filicum, Java (Massart)

13. **Lembosia Patouillardi** Sacc. et Syd. Sic nominanda est *Lembosia orbicularis* Pat. in Syll. IX, p. 1108, quum exstet anterior *L. orbicularis* Wint. in Syll. IX, p. 1104.

14. **Lembosia hysterioides** Sacc. et Syd. Sic nominanda est *Lembosia cæspitosa* (Ell. et Ev.) Sacc. in Syll. IX, p. 1107, quum exstet præcedens *L. cæspitosa* (Cke.) Sacc. in Syll. II, p. 742

Sect. 4. Phragmosporæ

HYSTERIUM Tode em. — Syll. II, p. 743, IX, p. 1108, XI, p. 387.

1. **Hysterium Negerianum** P. Henn. et Lind. Hedw. 1897, p. 231. — Perithecciis sparsis v. gregariis, caulicolis, oblongis, pulvinatis, carbonaceo-atris, opacis, striatis, 1-1$^1/_2$ mm. longis, labiis obtusis, disco lineari, atro; ascis clavatis, basi subpedicellatis, curvatis, apice obtusis, octosporis, 90-120 × 18-21; paraphysibus filiformibus, ca. 1 μ crassis; sporidiis oblongis, 3-septatis, grosse 4-guttulatis, 21-30 × 8-10, hyalino-fuscidulis. 2728

Hab. in caulibus ignotis pr. Concepcion in Chile (Neger). — *Hysterio pulicari* Pers. affine.

2. **Hysterium Melaleucæ** F. Tassi, Atti R. Acc. dei Fisiocr. Siena 4 ser. 1896 (Microm. III, pag. 5) et Rev. Mycol. 1896, pag. 159, tab. CLXVII, fig. 3. — Peritheciis superficialibus, sparsis v. subconfluentibus, oblongis, carbonaceis, nitidulis, atris, medio rima longitudinali percursis, labiis anguste rotundatis, $^1/_3$-1 mm. long., $^1/_3$ mm. lat., contextu atro fuligineo; ascis cylindraceis v. subcylindraceo-clavatis, sursum rotundatis, basi breve attenuato-stipitatis, octosporis, 80–100 × 12–14; paraphysibus filiformibus, longis, granulosis obvallatis; sporidiis subdistichis v. inordinatis, oblongo-ellipticis, clavulatis, initio hyalinis, nucleolatis, dein fuligineis, 3-septatis, leniter constrictis, haud raro loculo tertio incrassato, 16-18 × 5 $^1/_2$; spermogoniis punctiformibus; spermatiis cylindraceis, continuis, hyalinis, 2-2 $^1/_2$ × $^1/_3$-$^1/_2$, initio basidiis filiformibus fultis. 2729

Hab. in cortice Melaleucæ armillaris in horto botanico Senensi Italiæ. — Affine *H. pulicari* Pers., sed differt peritheciis, quæ zona carent, et sporidiis clavulatis et non guttulatis.

3. **Hysterium ? Alstoniæ** F. Tassi, Att. R. Acc. dei Fisiocr. Siena 4 ser. VIII (Microm. III, p. 4). — Peritheciis superficialibus, sparsis vel plus minusve approximatis, oblongo-linearibus, nigris, carbonaceis, utrinque obtusiusculis, $^2/_3$-1 $^1/_3$ mm. longis, $^1/_3$-$^1/_4$ mm. crassis, rima dorsali hiantibus, contextu atro-fuligineo; fructificatione ignota. 2730

Hab. in cortice vetusta Alstoniæ scholaris in insulis Moluccis.

4. **Hysterium erianthicolum** Atk. Bull. Cornell Univ. III, n. 1, 1897, p. 12. — Peritheciis nigris, carbonaceis, breve oblongis, rima angustissima dehiscentibus, 2-3 mm. longis, 1 $^1/_2$ mm. latis; ascis clavatis, 90-120 × 10-12, paraphysatis; sporidiis bi-vel tristichis, 8-9-septatis, flavis, cylindraceis, curvulis, loculo quarto latiore, 30-35 × 3-4. 2731

Hab. in culmis Erianthi spec. Auburn, Alabama Amer. bor.

RHYTIDHYSTERIUM Speg. — Syll. II, p. 759, IX, p. 1111, XI, p. 388.

1. **Rhytidhysterium guaraniticum** Speg. — Syll. IX, p. 1111 — ***R. javanicum** P. et S. Malpighia XI, 1897, p. 528. — A typo differt sporidiis medio non v. lenissime constrictis; peritheciis minoribus, distinctius striato-rugosis. 2732

Hab. in cortice arborum in horto bot. Bogoriensi, ins. Java. — Perithecia tota fusco-nigra, etiam in disco, 1-2 mm. long., 0,7-1 mm. lat., 0,5 mm. alt., recta v. sinuosa, sparsa, subinde 2-3-conferta et radiatim quoque posita, striis transversis sub lente prædistinctis, crebre parallelis. Rima linearis, labiis obtuse involutis. Asci cylindracei, breve stipitati, apice rotundati, 170-200 × 12-14, octospori; paraphyses asco longiores, apice coalescentes et fuscescentes. Sporidia oblique monosticha, oblongo-fusoidea, sæpius inæquilateralia, utrinque obtusiuscula, 3-septata, 32-36 × 10-13, non constricta vel vix visibiliter.

GLONIELLA Sacc. — Syll. II, p. 765. IX, p. 1112, XI, p. 388.

1. **Gloniella ambigua** Karst.-Sacc. Syll. XI, p. 338 — **G. anceps** Sacc. 2733
Malpighia XI, 1897, p. 280. — Peritheciis carbonaceis, 0,6 × 0,3 mm., basi ligno infossis, demum rima brevi inæquali dehiscentibus; ascis breviter stipitatis, 90 × 12-14, apice rotundatis, copiose filiformi-paraphysatis; sporidiis distichis, fusoideis, 3-septatis, non constrictis, 20-24 × 7, hyalinis.

Hab. in ramis corticatis Rhododendri ferruginei, Riva-Valdobbia, Italia boreal. (Carestia).

PSEUDOGRAPHIS Nyl. — Syll. II, p. 769, IX, p. 1116.

1. **Pseudographis Volkensii** P. Henn. Fungi camerun. I, in Engl. 2734
Jahrb. XXII, 1895, p. 80. — Peritheciis erumpentibus, epidermide cinctis, rectis v. curvulis, atris, $^1/_2$-1 mm. longis, labiis vix distantibus, integris; disco atro; ascis cylindraceo-clavatis, 8-sporis, apice obtusis; paraphysibus numerosis, filiformibus, hyalinis; sporidiis subdistichis vel conglobatis, fusoideis, obtuso-acutiusculis, rectis v. curvulis, 5-pluriseptatis, septis non constrictis, cyanescentibus, 18-24-30 × 6-8, hyalinis.

Hab. in ramis vivis Turrææ Volkensii, Kilimandscharo, Africa (Volkens).

Sect. 5. Dictyosporæ.

GLONIOPSIS De Not. — Syll. II, p. 772, IX, p. 1116.

1. **Gloniopsis Ilicis** E. Rostr. Bot Tidsskr. 1897, p. 45. — Perithe- 2735
ciis superficialibus, atris, elongatis v. oblongis, 2-3 mm. longis, 1 mm. crassis, disco lineari, labiis conniventibus cinereo-pulveraceis; ascis cylindraceis, 90-95 μ. longis, paraphysatis: sporidiis

inordinate monostichis, ovatis v. ellipsoideis, hyalinis, 5-septatis, ad septum mediam constrictis, quandoque septo uno alterove longitudinaliter divisis.

Hab. in ramulis Ilicis Aquifolii in Dania.

2. **Gloniopsis larigna** Lamb. et Fautr. Rev. Mycol. 1895, p. 168, tab. CLVII, fig. 1. — Peritheciis atro-nitidis, superficialibus, elevatis, conicis, dein applanatis, hiantibus; ascis irregulariter piriformibus, 40 × 12 vel elongatis et 50 × 10; sporidiis cumulatis v. distichis, hyalinis, transverse triseptatis, duabus cellulis in longitudine uniseptatis, ad septa constrictis, septo medio in duas partes inæquales divisis. 2736

Hab. in ramis Laricis europææ in Gallia.

HYSTEROGRAPHIUM Corda — Syll. II. p. 776, IX, p. 1119, XI, p. 389.

1. **Hysterographium Artemisiæ** Pat. Enum. Champ. Tunisie 1892, p. 16, tab. I, fig. 5. — Peritheciis superficialibus, sparsis, nigris, coriaceis, longitudinaliter rimosis, dein apertis, suborbicularibus, marginatis; disco nigrescente; ascis clavatis, stipitatis, apice obtusis, 120-150 μ.; paraphysibus gracilibus, hyalinis, apicem versus in ramos divisis clavatisque, virescentibus, sæpe coalescentibus; sporidiis ovalibus, fusoideis, luteis, dein utrinque pallidioribus, transverse 8-10-septatis, in longitudine multiseptatis, 28-35 × 15. 2737

Hab. in caulibus emortuis Artemisiæ Herbæ-albæ, Tunisia.

2. **Hysterographium incisum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 462. — Peritheciis oblongis, subimmersis, paralliele dispositis, 1-2 × 1 mm., subacutis, striis longitudinalibus percursis, labiis arcte conniventibus; ascis oblongo-cylindraceis, breve stipitatis, paraphysatis, octosporis, 75-80 × 12-13; sporidiis distichis, ovato-oblongis v. ovato-ellipticis, brunneis, 3-4-septatis, interdum septo longitudinali divisis, 18-20 × 5-7. 2738

Hab. in ramis emortuis Rhois aromaticæ, Colorado Amer. bor.

3. **Hysterographium Zizyphi** Pat. Cat. rais. pl. cell. Tunisie 1897, p. 112. — Peritheciis atris, oblongis, utrinque attenuatis, basi insculptis, levibus v. longitudinaliter striatis, 1 mm. longis; labris tumidulis; ascis cylindraceo-clavatis, apice rotundatis, paraphysatis, 100-120 × 15-20; sporidiis melleo-fuliginosis, transverse 4-7 septatis constrictisque, cum 1 septulo longitudinali. 2739

Hab. in ligno denudato Zizyphi in Tunisia.

4. **Hysterographium simillimum** Starb. Bih. K. Sv. Vet. Ak. Handl. XXI, 1895, III, n. 5, p. 15, fig. 1. — Peritheciis primo plus minusve solitariis, lenticularibus, circulariter determinatis, 150-200 μ. diam., deinde ellipsoideis v. ellipsoideo-rotundatis, 300–500 × 200, demum longitudinalibus, 2 mm. longis, 0, 2 mm. latis, gregariis sæpissime parallelis, superficialibus, basi insculptis, matricem non vel vix atro-inquinantibus, atratis, carbonaceis, extus rugosis, vix vel paullum striatulis, rima arcta dehiscentibus; ascis cylindraceis, 8-sporis, sursum obtusis, breviter stipitatis, 90-120 × 14-16; sporidiis fere monostichis, primo ellipsoideis v. deorsum angustioribus, hyalinis, 2-3-septatis, sensim fusoideo-soleæformibus, præsertim medio sed etiam ad alia septa interdum constrictis, transversim 4-6-septatis, loculis mediis v. rarissime omnibus sepimento uno longitudinali partitis, junioribus tunica mucilaginosa circumcinctis, 20-24 × 6-9, fuscescentibus; paraphysibus sursum ramosis, epithecium fusco-nigrum formantibus. 2740

Hab. in ligno decorticato quercino (?), Œstergötland Sueciæ (Haglund). — Ad basim perithecii sub microscopio adsunt hyphæ mycelii ramosæ, septatæ, rugosæ, 2-3 μ. latæ.

5. **Hysterographium oligomerum** Penz. et Sacc. Malpighia XI, 1897, p. 528. — Perithecii irregulariter sparsis, subinde 2-3 varie confertis, immo et radiatim digestis, superficialibus, prominentibus, oblongo-navicularibus, totis atris, carbonaceis, basi coarctatis, sublevibus, 1,5-2 mm. long., 0,5 mm. cr. et alt.; rima lineari, labiis obtuse involutis; ascis jam resorptis; sporidiis oblongis, rectis v inæquilateralibus, utrinque rotundatis, 3-septato-muriformibus, non constrictis, 30 × 11-12, rufo-fuligineis. 2741

Hab. in ramis corticatis, Tjampea, ins. Java. — Affine *H. formoso* (Cooke) S. et *H. viticolo* (C. et P.) Rehm, sed sporidia non constricta, labia remotiuscula etc.

Sect. 6. Scolecosporæ.

HYPODERMA DC. — Syll. II, p. 784, IX, p. 1123, XI, p. 389.

1. **Hypoderma Ericæ** Tubeuf, Bot. Centralbl. 1885, p. 15; Rehm, Discomycet. p. 1211. — Perithecii sparsis innatis, convexo-prominulis, globosis oblongisve, glabris, nigris, rima tenui dehiscentibus, ½–1 mm. longis, ⅓–½ mm. latis; ascis clavatis longissime stipitatis, apice rotundatis, 70-80 × 10, octosporis, paraphysibus filiformibus supra arcuatis obvallatis; sporidiis cylindraceis apicem 2742

versus attenuatis rotundatisque, demum 1-septatis mediocriter constrictis, hyalinis, 18-20 × 3, polystichis.

Hab. in foliis aridis Ericæ carneæ in Tirolia.

2. **Hypoderma Strobi** Otth, Bern. Mittheil. 1868, p. 41. — Perithe- 2743
ciis nigro-fuscis, tenuibus, peridermio cinerescente adnato tectis, incurvis, v. 3-4-fariam ramosis, supra e labiis introflexis canaliculatis, intus nigris (sed sectis, sub microscopio visis, dilute flavidis); ascis clavatis, octosporis; sporidiis acicularibus uno fine acutatis, altero obtusatis, 40 × 2, pluri-guttulatis; paraphysibus filiformibus.

Hab. in ramulis siccis Pini Strobi, Bremgartenwald, Helvetia.

3. **Hypoderma abietinum** Ell. et Ev. Bull. Torr. Bot. Cl. 1897, p. 463. 2744
— Gregarium, ellipticum, asperum, $^3/_4$-1 $^1/_4$ × $^1/_2$-$^3/_4$ mm., labiis pro parte clausis; ascis clavatis, 100-110 × 8-10; paraphysibus linearibus, plerumque apicibus arcuatis; sporidiis anguste fusoideis, nucleatis, leniter curvatis, hyalinis, 20-22 × 1 $^1/_2$-2.

Hab. in ramis decorticatis Abietis, Colorado Amer. bor.

LOPHODERMIUM Chev. — Syll. II, p. 791, IX, p. 1124, XI, p. 390.

1. **Lophodermium Pæoniæ** Rehm, Bot. Notis. 1897, p. 259. — Peri- 2745
theciis in maculis dealbatis longe lateque effusis, sparsis v. subgregariis, sæpe 2-6 confluentibus, typice ellipsoideis, rectis, 0,8-1 mm. longis, 0,4-0,5 mm. latis, atris, matrice nigrificata, longitudinaliter striata arcte tectis, siccis concavis v. applanatis, linea longitudinali, labiis clausis formata, dimidiatis, humectatis convexulis, per rimam latiusculam ellipsoideam hymenium roseum nudantibus, margine labiorum crassiore; textura parenchymatica, fusca, cellulis globosis, minusculis, 4-6 μ. circiter diam., in longitudinem perithecii plus minus distincte seriatis; ascis clavatis, apice lumine coarctato, rotundatis, deorsum in stipitem ad 10 μ. longum sensim attenuatis, 65-80 × 8; sporidiis stipatis, filiformibus, rectis v. subrectis, ascos pedicello excepto subæquantibus, continuis, hyalinis, 55-65 × 1 $^1/_2$; paraphysibus numerosis, filiformibus, ascos æquantibus vel parum superantibus, apice valde uncinatis, hyalinis, continuis, eguttulatis.

Hab. in caulibus aridis Pæoniæ officinalis in Suecia. — A *Loph. herbarum*, cui affine, præcipue ascorum minutie diversum.

2. **Lophodermium hypodermoides** Penz. et Sacc. Malpighia XI, 1897, 2746
p. 529. — Peritheciis longitrorsum subparallele gregariis, subcutaneo-erumpentibus, epidermide atrata adhærente (hinc parum manifesta) velatis, oblongo-linearibus, 1,5-3 mm. long., 0,6 mm.

lat., utrinque obtusulis, superficie convexis, nigris, carbonaceis, rima angustissima, labiis tenuibus; ascis cylindraceis, subsessilibus, aparaphysatis (?), 140-150 × 7-8, apice obtusis, octosporis; sporidiis bacillari-filiformibus, multiguttulatis, rectiusculis, 140-145 × 1,5-2, hyalinis, per asci basim exeuntibus.

Hab. in ramis corticatis emortuis Cissi sp., M. Gedeh, ins. Java. — Perithecia et locus potius *Hypodermatis;* sporidia vero *Lophodermii.* Perithecia sæpius apparent longitrorsum 3-striata, sed striæ exteriores a cute matricis fissa videntur oriri.

3. **Lophodermium cyrillicolum** Tracy et Earle, Bull. Torr. Bot. Cl. 1896, p. 209. — Peritheciis amphigenis, in maculis irregularibus brunneis subaridis rubro-marginatis nidulantibus, innatis, depressis atque tandem collabentibus, late ovalibus, 1-1 $^1/_2$ mm., labiis conniventibus; ascis cylindraceo-clavatis, 65-75 × 10, paraphysibus numerosissimis filiformibus ascos superantibus summo apice non recurvatis copiose obvallatis; sporidiis filiformibus, ascos subæquantibus cum iisque parallele dispositis rectisque. 2747

Hab. in foliis vivis Cyrillæ racemifloræ, Mississippi Amer. bor.

4. **Lophodermium intermissum** Starb. Bih. K. Sv. Vet. Ak. Handl. XXI, 1895, III, n. 5, p. 17, fig. 2. — Ascomatibus epiphyllis nec non ad margines folii relaxatas nidulantibus, sparsis v. aggregatulis, plerumque ellipsoideis v. elongatis, rectis v. curvulis, interdum stellatim divisis v. irregulariter determinatis, olivaceo-fuscescentibus, primo matrice velatis, deinde rima longitudinali, angustissima erumpentibus et mox epidermide relaxata dehiscentibus, discum ochraceum v. pallide olivaceum revelantibus, crassiuscule marginatis; textura merenchymatica cellulis minutissimis composita, 0,5-1 mm. longa, 0,2-0,2 $^1/_2$ mm. lata; ascis 8-sporis, clavatis, longe angusteque pedicellatis, sursum obtusatis, 60-70 × 4 $^1/_2$-5; sporidiis stipatis, filiformibus, utrinque obtusis, ascos pedicello excepto subæquantibus, 25-35(-45) × 1-1 $^1/_2$, rectis v. curvulis, hyalinis, paraphysibus sat numerosis, filiformibus, sursum in clavulam ascos superantem, sæpe medio vel pluries incurvatam, 10-15 × 5-6, transeuntibus. 2748

Hab. in foliis aridis Andromedæ polifoliæ, Œstergötland Suecia (Haglund). — *L. clavuligerum* Speg. quam maxime affine, differt peritheciis e discoideo subellipticis, in sicco subcollabascentibus, rimula minutissima vix perspicua donatis, sporidiis 5-9-septatis.

5. **Lophodermium Gentianæ** Vogl. Bull. Soc. Bot. Ital. 1896, p. 41. 2749
— Peritheciis innatis, ellipsoideis, levibus. in macula lutea dispersis, nigris; ascis clavatis, apice rotundatis, sessilibus, 8-sporis, 100-110 × 12-14; sporidiis parallele stipatis, filiformibus, guttulatis, rectis v. vix divergentibus, ascum æquantibus, 1-2 μ. latis, hyalinis; paraphysibus filiformibus, apice uncinatis.

Hab. in foliis Gentianæ asclepiadeæ in Italia boreali.

6. **Lophodermium Pinastri** (Schrad.) Chev.-Sacc. Syll. II, p. 794 — 2750
forma **conigena** P. Brun. Act. Soc. Linn. Bordeaux 1888, p. 13 extr. — Peritheciis minutissimis; ascis 140 × 10; sporidiis 90 × 1 ½.

Hab. in squamis strobilorum Pini silvestris, La Mothe-Saint-Héray in Gallia.

7. **Lophodermium javanicum** Penz. et Sacc. Malpighia XI, 1897, p. 529. 2751
— Peritheciis hypophyllis, rarius amphigenis, areas varias, decoloratas incolentibus, longitrorsum v. inæqualiter dispositis et plus minus laxe congregatis, superficialibus, oblongatis, 1-1,2 mm. long., 0,3-0,4 mm. lat., depressis, membranaceo-carbonaceis, nigris, nitidulis, rima anguste lineari percursis, labiis tenuibus; ascis cylindraceis, breviter stipitatis, apice rotundatis, 80-90 × 7-8, octosporis, aparaphysatis (?); sporidiis baciliari-filiformibus, multiguttulatis, 60-80 × 1,7-2, hyalinis.

Hab. in pag. inf. foliorum emortuorum Elettariæ, Tjibodas, ins. Java. — Var **Pandani** Penz. et Sacc. l. c. differt peritheciis amphigenis paullo longioribus, 1,5-2 mm. long., transverse positis; ascis sporidiisque non diversis. In foliis Pandani emortuis, Tjibodas, ins. Java.

8. **Lophodermium Raapianum** Penz. et Sacc. Malpighia XI, 1897, 2752
p. 529. — Peritheciis sparsis, amphigenis, longitrorsum positis, oblongo-lanceolatis, utrinque obtusulis, subcutaneo-erumpentibus, applanatis, 900 × 250, nigricantibus, membranaceis, rima angustissime lineari percursis, labiis arcte conniventibus, tenuibus, pallidis; ascis cylindraceis, breviter stipitatis, apice rotundatis, 100-120 × 8-9, paraphysatis, octosporis; sporidiis filiformi-bacillaribus, 90-100 × 1-1,5, multiguttulatis, hyalinis.

Hab. in foliis languidis v. emortuis Scirpi, Poeloe Tana Masa, (Insul. Batoe, prope Sumatræ littus occidentale) (H. Raap). — A *L. caricino* (Desm. et Rob.) Duby differt ascis sporidiisque majoribus; a *L. tumidulo* S. B. et R., ascis multo angustioribus etc.

LOPHIUM Fr. — Syll. II, p. 799, IX, p. 1126.

1. **Lophium Eriophori** P. Henn. Myk. Not. I, 1895, p. 2. — Peri- 2753
theciis sessilibus, solitariis v. laxe gregariis, conchiformibus, oblongis, atris, levibus, rima longitudinaliter dehiscentibus, 0,5-0,8 × 0,3-0,5 mm.; ascis subsessilibus, subfusoideis v. subclavatis, apice acutatis, basi angustatis, octosporis, 180-220 × 12-14; sporidiis filiformibus, conglobatis, hyalinis, guttulatis, dein pluriseptatis, 100-130 μ.; paraphysibus filiformibus, hyalinis, ramosis, septatis.

Hab. in foliis emortuis Eriophori vaginati pr Berolinum Germaniæ.

OSTROPA Fr. — Syll. II, p. 804.

1. **Ostropa virens** Otth, Bern. Mittheil. 1868, p. 55. — Peritheciis 2754
erumpentibus, demum superficialibus, globosis, rima transversali dehiscentibus, glauco-virentibus, primum crusta fulvida corticatis; ascis longissimis teretibus, octosporis; sporidiis filiformibus, asco paullo brevioribus, fasciculatis, dein sursum dissilientibus, basi fixis remanentibus, septis numerosissimis multilocularibus (hyalinis).

Hab. in ramis Pruni spinosæ, P. avium et P. Padi in Helvetia. — Perithecia passim 1,5 mm. lata.

ACROSPERMUM Tode — Syll. II, p. 807, IX, p. 1128.

1. **Acrospermum minutum** P. Henn. Hedw. 1897, p. 232. — Maculis 2755
fuscis, confluentibus; peritheciis hypophyllis, plerumque solitariis minutis, 300-500 μ. longis, 180-200 μ. latis, subulato-clavatis, atris, apice pallidioribus; ascis filiformibus, ca. 300-350 μ. longis, $3^1/_2$-$4^1/_2$ μ. crassis, apice obtuso-rotundatis; sporidiis filiformibus, 0,5 crassis; paraphysibus filiformibus, 0,5 μ. crassis.

Hab. in foliis Qualeæ spec. pr. Goyaz Brasiliæ (Glaziou). — *Acrospermo compresso* Tode affinis species.

2. **Acrospermum bignoniicolum** P. Henn. Hedw. 1897, p. 231. — 2756
Maculis pallidis, rotundatis, dein confluentibus; peritheciis solitariis vel aggregatis, subfasciculatis, subulatis, subcompressis, sessilibus, perpendicularibus, levibus, atris, apice obtusis vel acutiusculis, vix 1 mm. longis, 170-200 μ. crassis; ascis cylindraceis, apice rotundatis, usque ad 400 μ. longis, 4-5 et 6 μ. crassis; paraphysibus filiformibus, 1 μ. crassis; sporidiis parallelis, filiformibus, hyalinis, intus guttulatis, 1 μ. crassis.

Hab. in foliis Bignoniaceæ cujusdam pr. Goyaz Brasiliæ (Glaziou). — *Acrospermo compresso* Tode affinis species.

3. **Acrospermum gregarium** Hazsl. Math. es term. Közlem. XXV, 2757
2, Budapest 1892, p. 25. — Stromatibus ovato-pyramidalibus, albis, apice rubris; peritheciis unico foramine rotundo apicali deliscentibus; sporidiis filiformibus, continuis, in utraque parte acuminatis, albis, fasciculatim ex stromate prominentibus, ejectis, demum curvatis, 50 μ. longis.

Hab. in ramis in Hungaria. — Sporidia dimidio breviora quam sporidia *Acrospermi compressi.*

4. **Acrospermum urceolatum** Olson, Bot. Gaz. XXIII, 1897, p. 371, 2758
tab. XXIX, fig. 1-10. — Peritheciis solitariis v. in cæspites minutos aggregatis, elongato-verticalibus, subcompressis, in maturitate stipitatis urceolatisque, initio hemisphæricis, dein clavatis, obscure olivaceis, supra tomento albo granuloso tectis, 550-800 μ. longis, 220-400 μ. latis, ostiolo distincto ornatis; ascis copiosis, elongato-cylindraceis, deorsum attenuatis, confertissimis, 220-350 × 5-8; sporidiis hyalinis, filiformibus, tenuissimis, 200-350 × 1,6, multiseptatis, vulgo curvulis, rarius in asco rectis; paraphysibus delicatis, filiformibus, non septatis, 60–110 × 1,3.

Hab. in fronde Selaginellæ rupestris, Minnesota Amer. bor.